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Economic impact of recreational hunting in NSW

Final Report

Game Licensing Unit, Department of Primary Industries

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Executive summary

Recreational hunting by the 19,000 NSW game hunting licence holders accounts for \$119m of Gross State Product and 860 jobs within the NSW economy. The 207,000 non-game licence holders account for between \$446m and \$1,366m of Gross State Product and between 3,932 and 11,572 jobs.

INTRODUCTION

Hunting supports a range of businesses and jobs including the sale of equipment, as well as trip-related purchases on food, drinks, fuel and accommodation. This report summarises the results of research into the economic impact of hunting in New South Wales (NSW). The study was commissioned by the Game Licensing Unit (GLU) within the Department of Primary Industries and was undertaken by RMCG, EconSearch and DBM Consultants.

This report focuses on the economic impact of expenditure by hunters if:

- The expenditure was associated with recreational hunting (rather than hunting for primary production, or professional pest control);
- The hunting occurred in NSW;
- The hunting occurred between March 2016 and February 2017.

The research did not discriminate on the basis of residence of hunter and hunters surveyed were from NSW, other states and territories, and other countries.

A summary of the project method and results is shown in Figure ES- 1.

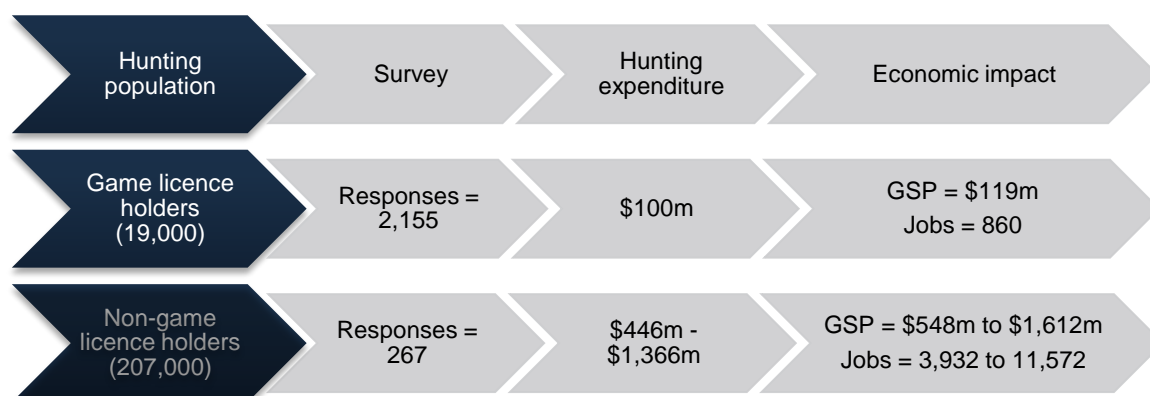


Figure ES- 1: Summary of project method and results

RECREATIONAL HUNTING IN NSW

There are three main animal groups hunted in NSW: **non-indigenous game animals** such as deer and introduced game birds; **native game birds** (ducks); and **non-indigenous animals** such as pigs, rabbits, dogs and foxes that are often referred to as feral or pest animals.

The main hunting methods used to categorise hunting in this report are firearms, bows, and pig hunting with dogs.

In NSW, deer are hunted using stalking at defined times of the year, pigs are usually hunted using dogs, ducks are hunted on the rice crops in southern NSW, while pest animals are usually hunted with firearms.

A NSW game hunting licence is required to hunt game species (deer and ducks) on private land, or to hunt any species on public land. At the time of this study there were 19,000 recreational game hunting licence holders in NSW, of whom around 15,000 hold a firearms licence. There are further 167,000 hunters who hold a firearms licence, but do not hold a game hunting licence. There are also an estimated 40,000 hunters who hunt non-indigenous animals on private land *without* a firearm (i.e. using a bow or dogs). There is thus an estimated total of 226,000 people who hunt in NSW.

Recreational hunters are predominantly male (97 per cent) and between 30 and 49 years of age. Sixty nine per cent of NSW game hunting licence holders live in NSW, 20 per cent in Victoria, and the rest mostly residing in Queensland and the ACT.

SURVEY

To model the economic impact of hunting, it was necessary to first determine hunting-related expenditure. Data on hunting-related expenditure was gathered through an online survey. The survey was promoted through an email to game hunting licence holders, print advertising, social media and hunting associations. Incentives and a prize draw were offered to respondents.

2,422 responses to the survey were received.

HUNTING EXPENDITURE

The first step in calculating economic impact was to develop expenditure estimates for the hunting population. Expenditure is a measure of how much hunters spend while on hunting trips and at other times of the year. To estimate total annual expenditure by LGA from the survey, the following data processing steps were undertaken:

1. Data adjustment;
2. Estimation of on-trip and off-trip expenditure by the sampled hunters disaggregated by method (firearms, bows and pig dogging) and by whether the hunting occurred on public land or private land; and
3. Extrapolation of expenditure from the survey sample to the population.

Hunting expenditure was estimated to be \$100 million for game hunting licence holders. For non-game hunting licence holders a range was estimated, based on varying assumptions of how much of the non-game hunting licence holder population had hunted over the previous 12 months. This range was between \$446 million and \$1,366 million.

The main expenditure items were hunting equipment (27 per cent of total game hunting licence holder expenditure), vehicles (20 per cent), food and drink (14 per cent), fuel (13 per cent) and ammunition (10 per cent).

ECONOMIC IMPACT

This study is an economic impact assessment, which is concerned with measuring the effect or 'footprint' of a given activity on the economy. This study estimates the footprint of recreational hunting on the NSW economy.

The estimates of economic impact are generated by an extended input-output model known as the RISE model (Regional Industry Structure & Employment), developed by EconSearch over the past decade.

The contribution to GSP of hunting by game hunting licence holders was estimated to be **\$119 million** as shown in Table ES- 1.

Table ES- 1: Contribution to GSP by game hunting licence holders, NSW (\$m)

	FIREARMS	BOWS	DOGS	TOTAL
Public land	29	3	3	34
Private land	63	9	13	85
Total	92	12	15	119

The employment related to hunting in NSW by hunters with NSW game hunting licences was estimated to be **860 jobs** as shown in Table ES- 2.

Table ES- 2: Contribution to employment by NSW game hunting licence holders, NSW (FTE)

	FIREARMS	BOWS	DOGS	TOTAL
Public land	207	20	19	247
Private land	457	65	91	613
Total	664	86	110	860

The GSP per hunter for game hunting licence holders was \$6,200.

The economic contribution of non-game hunting licence holders was estimated under two scenarios regarding the proportion of hunters who had been on a hunting trip in the past 12 months. The range of estimates provided by these two scenarios is shown in Table ES- 3, with a total economic impact estimated between \$548 million and \$1,612 million.

Table ES- 3: Contribution to GSP by non-game hunting licence holders (\$m)

GSP (\$M)	FIREARMS	BOWS	DOGS	TOTAL
Total	329 - 892	59 - 161	160 - 559	548 - 1,612

Table ES- 4: Contribution to employment by non-game hunting licence holders (FTE)

EMPLOYMENT (FTE)	FIREARMS	BOWS	DOGS	TOTAL
Total	2,355 - 6,369	426 - 1,158	1,151 - 4,045	3,932 - 11,572

GSP per hunter was estimated to be between \$2,700 and \$7,900.

Gross Regional Product (GRP) and employment as a result of game hunting licence holder expenditure was estimated at the local government area (LGA) level for the 43 LGAs with the highest expenditure. Employment Hunting-related employment (Figure ES- 2) is located in the major cities where much of the off-trip expenditure on equipment occurs, and the main hunting areas in regional NSW.

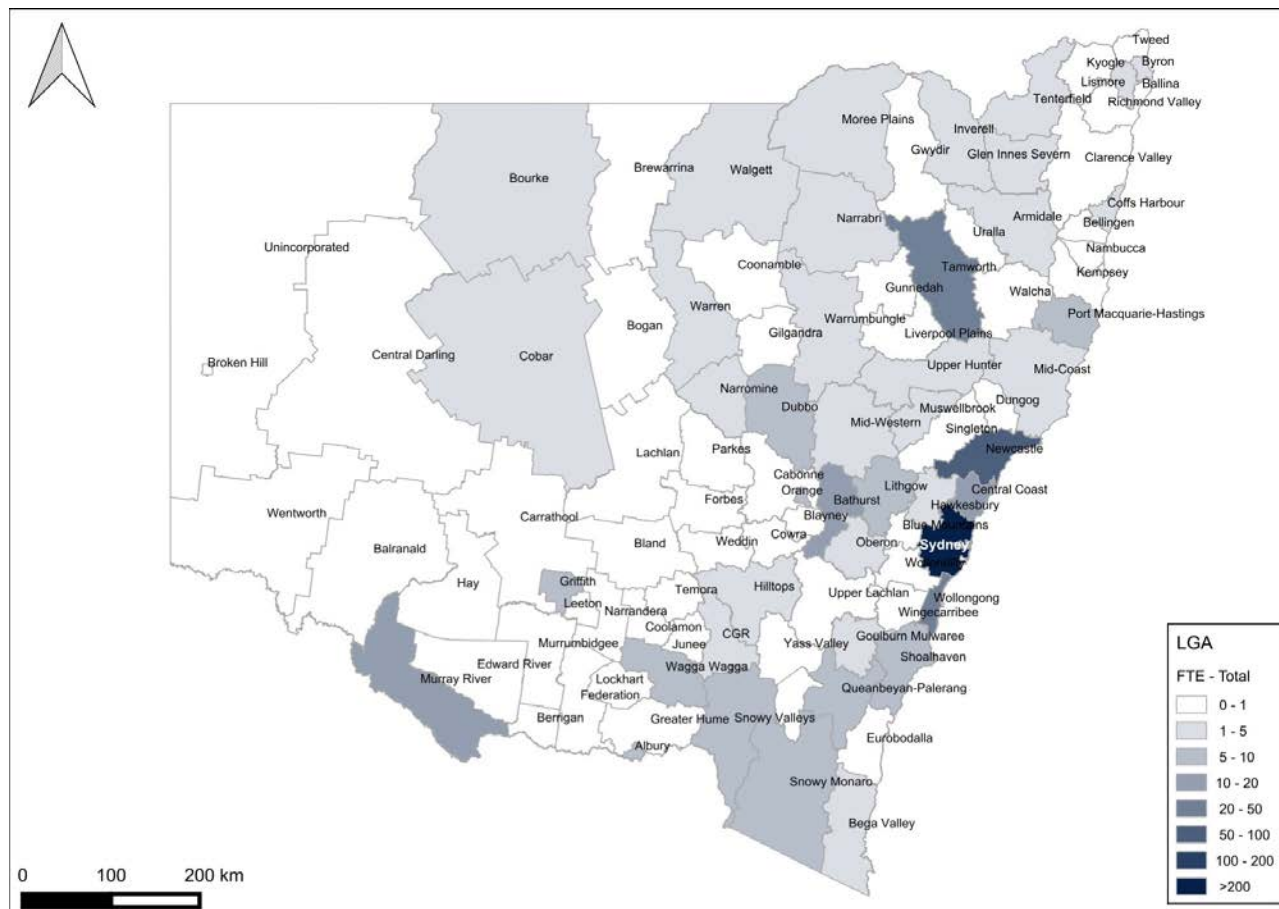


Figure ES- 2: Hunting-related employment by local government area

The sample of non-game hunting licence hunters was not large enough within LGAs to estimate economic impact by LGA.

COMPARISON WITH VICTORIA

In 2013 the Victorian Department of Environment and Primary Industries commissioned the project team to estimate the economic impact of recreational hunting in Victoria.

The GSP impact of expenditure by game hunting licence holders in Victoria was \$439m. This is higher than the comparable figure in NSW of \$119 for two reasons: there were more hunters in Victoria (45,000 versus 19,000 in NSW), and the expenditure per hunter was more in Victoria (\$9,300 versus \$5,300 in NSW).

Table ES- 5: Comparison of headline results between NSW and Victoria

	VICTORIA (2013)	NSW (2016)
Number of hunters	45,000	19,000
Expenditure	\$417m	\$100m
GSP	\$439m	\$119m
GSP per hunter	\$9,700	\$6,200
Employment	2,380 FTE	860 FTE

FURTHER WORK

To improve the economic impact results, we recommend that GLU gather further information to improve knowledge of several key characteristics of the hunting population. Specifically, we recommend regular, random sampling of the known population, i.e. hunters with NSW game hunting licences, (if possible) hunters with NSW firearm licences endorsed for recreational hunting purposes and bow hunters and pig hunters.

It would not be necessary to undertake a survey of the scale and nature undertaken for this study every year to update the economic impact results. A frequency of every 3 to 5 years is recommended. Economic impact results could be estimated in intervening years by:

- Updating the population estimates.
- Updating expenditure for the effects of price inflation.
- Developing assumptions around the level of hunting activity based on the seasons. These assumptions can be developed from information GLU ordinarily collect through their game management programs and through the data collected in the randomly-sampled licensee survey discussed above.

1 Introduction

THIS REPORT

Hunting and game management activities generate a range of social and economic benefits. All Australian states and territories provide for sustainable and regulated recreational hunting to varying degrees.

Through the expenditure of hunters, hunting supports businesses and jobs directly related to the manufacture and sale of hunting and outdoor products. This includes businesses supplying firearms, ammunition and other hunting equipment, camping equipment, safety equipment and vehicles. Hunting also supports businesses that support the trips that hunters undertake, providing fuel, accommodation, and food services.

This report summarises the results of research into the economic impact of hunting in New South Wales (NSW). The research provides information about the expenditure patterns of hunting in NSW, gathered through a survey of hunters, and the consequent economic impact of that expenditure, modelled using the Regional Industry Structure & Employment (RISE) economic model developed by EconSearch.

The study was commissioned by the Game Licensing Unit (GLU) within the Department of Primary Industries and undertaken by RMCG, EconSearch and DBM Consultants.

Data were also collected on hunters' demographic attributes, attitudes and behaviours. This information, as well as a segmentation analysis of hunters, was documented in a separate report.

SCOPE

It is necessary to define the scope of the expenditure that will be included in the economic impact modeling. In consultation with GLU, we determined that hunting expenditure was deemed to be in-scope if:

- It was associated with recreational hunting
- The hunting occurred in NSW
- The hunting occurred between March 2016 and February 2017.

Details on the scope are provided in Table 1-1.

Table 1-1: Project scope

ISSUE	IN SCOPE	OUT OF SCOPE
Geography	Hunting that occurs in NSW.	Hunting activity in other states, even when it is by a NSW resident.
Residence of hunter	All hunters included - NSW, interstate and international residents.	Nil.
Purpose of hunting	Recreational hunting only. This includes those who hold a recreational firearm licence, game hunting licence holders and also those who hunt using dogs and bows on private land (and therefore do not hold a firearm licence or game hunting licence).	Pest animal control for primary production. Professional hunters.

ISSUE	IN SCOPE	OUT OF SCOPE
Types of expenditure	All hunting-related expenditure, including 'off-trip' expenditure, for instance on equipment and vehicles.	Where items are used for both hunting and general use, for instance vehicles, that portion of expenditure that does not relate to hunting. Classification of trip expenditure is shown in Appendix 1.
Timeframe	Hunting over the year leading up to the implementation of the survey (for instance March 2016 to February 2017).	

ACKNOWLEDGEMENTS

RMCG, EconSearch and DBM gratefully acknowledge the assistance provided by:

- Hunting associations that assisted with testing of the questionnaire, distributing the survey to their members and providing background information about the nature of hunting expenditure;
- GLU staff, for their contribution to the project overall; and
- Survey participants.

2 Recreational hunting in NSW

INTRODUCTION

This section provides an overview of recreational hunting in NSW: the target animal groups, hunting methods, licensing and the hunters themselves. This background helps us to understand the economic impact of hunting.

TARGET ANIMAL GROUPS

There are three main animal groups hunted in NSW: **non-indigenous game animals** such as deer and introduced game birds; **native game birds** (ducks); and **non-indigenous animals** that are often referred to as feral or pest animals (Table 2-1).

The time of year that hunting occurs differs for each group, as shown in Table 2-1. Hunting of some deer species is restricted to a specific season, which for most deer species is between the 1st of March and the 31st of October. Hunting of native game birds (ducks) occurs through the NSW Native Game Bird Management Program. This program is used to protect agricultural crops (e.g. rice) during the growing season, which extends from around September to March.

Table 2-1: Animals groups hunted in NSW

GROUP	SUB-GROUP	SPECIES		LEGAL HUNTING SEASON
Non-indigenous game animals	Deer	▪ Fallow deer		1 st of March to the 31 st of October
		▪ Hog deer		1 st of April to the 30 th of April
		▪ Red deer		1 st of March to the 31 st of October
		▪ Wapiti deer		1 st of March to the 31 st of October
		▪ All other wild deer		All year
	Birds	▪ Bobwhite Quail	▪ California Quail	All year
		▪ Guinea Fowl	▪ Partridge	
		▪ Peafowl	▪ Pheasant	
		▪ Spotted Dove	▪ Turkey	
Native game birds	Ducks	▪ Australian Shelduck or Mountain Duck	▪ Australian Wood Duck or Maned Duck	Native game bird hunting in NSW is for sustainable agricultural management purposes only. There is no recreational hunting of native game birds in NSW. Hunting of native game birds (typically ducks) occurs through the NSW Native Game Bird Management Program. This program is used to protect rice crops during the growing season (Sep/Oct - March).
		▪ Black Duck or Pacific Black Duck	▪ Blue-winged Shoveler or Australasian Shoveler	
		▪ Chestnut Teal	▪ Grass Whistling Duck or Plumed Whistling Duck	
		▪ Grey Teal	▪ Hardhead Duck or White-eyed Duck	
		▪ Pink-eared Duck	▪ Water Whistling Duck, Wandering Whistling Duck or Whistling or Wandering Tree Duck	
	Quail	▪ Brown Quail	▪ Stubble Quail	Not currently hunted
	Pigeons	▪ Common Bronzewing Pigeon	▪ Crested Pigeon	Not currently hunted
Non-indigenous animals	Feral or pest animals	▪ Rabbit	▪ Pig	All year. Hunting for these species is generally in the cooler months of the year.
		▪ Hare	▪ Fox	
		▪ Dog (other than Dingo)	▪ Goat	
		▪ Cat	▪ Feral Pigeon	
		▪ Common or Indian Myna	▪ Common Starling	

HUNTING METHODS

There are a variety of hunting methods and equipment used in NSW for different game and non-indigenous animals. The methods and equipment that game hunters use influences their expenditure.

There are four legal hunting methods allowed on public land in NSW. The four categories are:

- Firearms (rifles and shotguns)
- Firearms (blackpowder)
- Bows
- Pig hunting with dogs

Deer are hunted in NSW using stalking, where the hunter tracks the deer using signs such as scats, hoof imprints and tree rubs. Hound hunting, permitted in Victoria, is not permitted in NSW. Deer hunting may only occur during the day. Use of spotlights, electronic devices that enhance vision or hearing, a sight that projects a beam, recorded sounds and use of baits, lures, decoys or live animals to attract the game animal are prohibited. Hunting from an aircraft, watercraft or motor vehicle is also prohibited. The main equipment purchases that deer hunters make are firearms, ammunition, archery equipment, knives, binoculars, scopes, deer calls, radios, GPS, hunting clothing, footwear, bags and packs, and camping equipment. Deer in NSW are generally hunted in the rangelands and east coast of NSW.

Pigs in NSW are generally hunted using dogs. Dogs are used for locating, holding or bailing pigs. The main equipment purchases that pig hunters make are dogs, vehicles, firearms, ammunition, knives, spotlights, radios, GPS, hunting clothing, footwear, bags and packs, and camping equipment. Pig hunting is reasonably widespread across NSW, with feral pig populations occurring across the NSW east coast, ranges and western NSW.

Native game bird hunting in NSW (most commonly ducks) is for sustainable agricultural management purposes only. Duck hunters use firearms and also dogs to locate and retrieve downed birds. Most native game bird hunting is carried out during the day. Native game birds may be hunted at night, but only in the immediate vicinity of a planted crop and while using a light of sufficient brightness that enables clear identification of the target species. Night hunting is not permitted over dams, creeks, rivers and channels. The main equipment purchases that duck hunters make are firearms, ammunition, spotlights and gun-mounted lights, binoculars, scopes, duck calls, radios, GPS, waders, hunting clothing, footwear, bags and packs, and camping equipment. Duck hunting occurs in the rice growing areas in southern NSW along the Murray and Murrumbidgee Rivers.

Feral or pest animals such as foxes, rabbits and cats are usually hunted with firearms, and can be hunted all year round.

LICENSING

Two different recreational game licences are currently offered for hunting in NSW: a General Class Licence and a Restricted Class Licence.

General Class Licence

A General Class Licence allows the holder to hunt game animals on private land only. It does not permit hunting on public lands. There are currently five categories of General Class Licence that allow for different hunting purposes (Table 2-2). This report focuses on the Standard Class Licence holders.

Hunting rabbits, foxes, feral goats, feral pigs, hares, feral cats or wild dogs (not dingo) on private land does not currently require a licence.

Table 2-2: General class licence categories

GENERAL CLASS (PRIVATE LAND ONLY)		
Standard	G-Licence	Recreational hunting of deer and native game birds on private land.
Hunting guide	G-Guide	Guiding others in their hunt, for fee or reward, on private land. Includes authority of a Standard G-Licence.
Professional hunter	G-Professional	Hunting on private land in the course of any paid employment or engagement. Includes authority of a Standard G-Licence.
Commercial hunter	G-Commercial	Hunting on private land to sell part/s of the harvested animal. Includes authority of a Standard G-Licence.
Visitor's	G-Visitors	Overseas residents hunting recreationally on private land in the company of a full licence holder.

Restricted Class Licence

A Restricted Class Licence allows the holder to hunt game animals on private land, as well as game animals and pest animals on public land. There are currently four categories of Restricted Class Licence that allow for different hunting purposes (Table 2-3). As with the General Class Licence, this report focuses on the Standard Class Licence holders.

Table 2-3: Restricted class licence categories

RESTRICTED CLASS (PUBLIC LAND)		
Standard	R-Licence	Recreational hunting on public or private land.
Hunting guide	R-Guide	Guiding others in their hunt for fee or reward on public or private land. Includes authority of a Standard R-Licence.
Commercial hunter	R-Commercial	Hunting on public or private land to sell part/s of the harvested animal. Includes authority of a Standard R-Licence.
Visitor's	R-Visitors	Overseas residents hunting recreationally on public or private land in the company of a full licence holder.

Recreational game hunting licences are required regardless of the hunting method: firearm, bow or dog hunting. In addition to the licences described above, to use a firearm for hunting in NSW you must have a **NSW Firearms Licence** issued by the NSW Police Force Firearms Registry, or a firearms licence issued by another state or territory authority.

Minors aged between 12 and 17 may also be granted a Restricted class or General class of game hunting licence. All licence conditions apply to a minor's licence as for a full adult licence, however minors may only hunt under the direct supervision of a fully licenced adult with the same class of licence as the minor.

A summary of what each of the two licence types allows in terms of target animals and land type is shown in Table 2-4.

Table 2-4: Standard NSW recreational game hunting licences

LICENCE TYPE	GAME ANIMALS		PEST ANIMALS	
	Public land	Private land	Public land	Private land
Restricted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not required
General	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not required

HUNTING POPULATION

There were 19,124 recreational game hunting licence holders in April 2017, of which 82 per cent (or 15,614) are Restricted Class Licence (R-Licence) holders and 18 per cent (or 3,510) are General Class Licence (G-Licence) holders. Of these recreational game hunting licence holders it is estimated that 80 per cent (~15,000) use firearms as their main method, while the remaining 20 per cent (~4,000) use bows or pig hunt with dogs.

There are 182,000 hunters licensed under the *Firearms Act 1996* to use firearms in a recreational hunting situation in NSW, that is people who hold a firearms licence for the 'genuine reason of Recreational Hunting/Vermin Control'. People who hold a licence for the 'genuine reason of Primary Production' are not in scope. This means that there are around 167,000 firearms licence holders who do not hold a game hunting licence (i.e. 182,000 less 15,000) who are able to hunt only non-indigenous animals on private land.

GLU estimates there are an additional 40,000 hunters that hunt non-indigenous animals on private land without a firearm (i.e. using a bow or dogs), for which it is not required to hold a recreational game hunting licence or firearms licence.

Thus, there is an estimated total of 226,000 hunters who hunt in NSW.

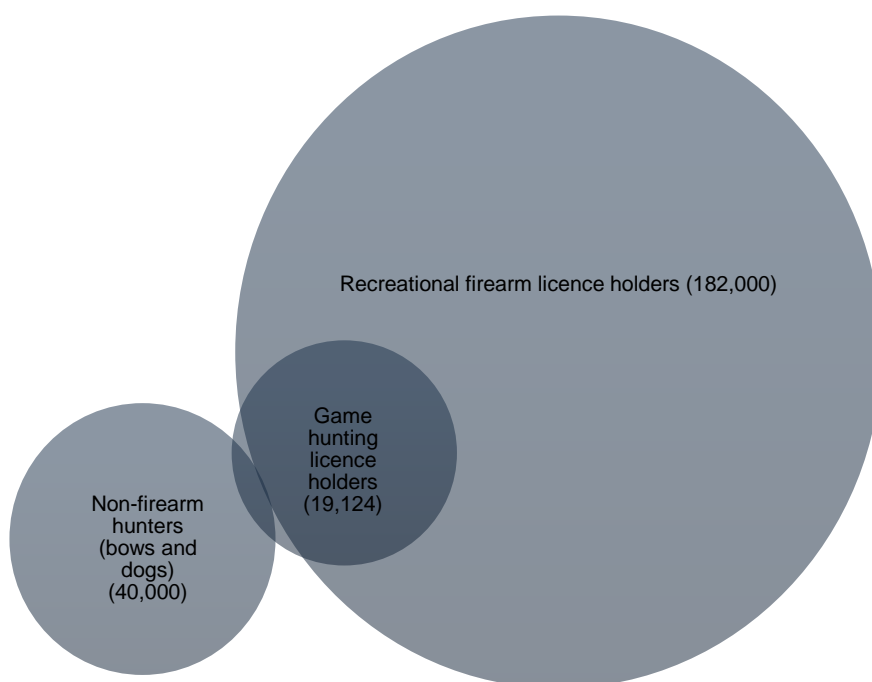


Figure 2-1: Hunting population in NSW

WHO ARE RECREATIONAL HUNTERS?

Recreational hunters are predominantly male, with 97 per cent of game hunting licence holders being male.

The age distribution of the hunting population is shown in Figure 2-2. The dominant hunting age groups amongst licence holders were 30-34, 35-39, 40-44 and 45-49 years of age.

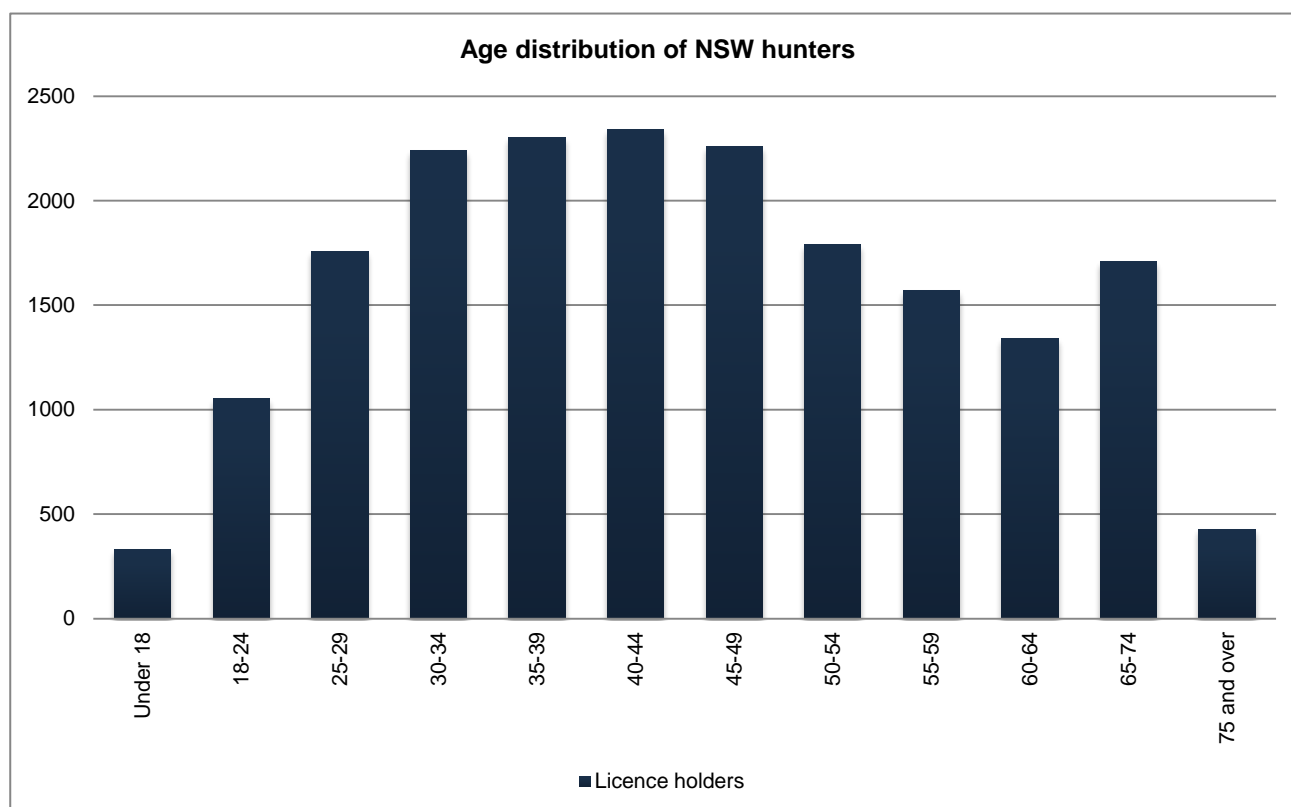


Figure 2-2: Age distribution of NSW game hunting licence holders

Sixty-nine per cent of NSW game hunting licence holders reside in NSW. Thus, there is a substantial proportion of game hunting licence holders from interstate, mostly Victoria (20 per cent), Queensland (5 per cent) and the ACT (4 per cent). A similar geographic distribution was achieved in the survey amongst other recreational hunters (non-game hunting licence holders), with the majority located in NSW (74 per cent) followed by Victoria (10 per cent) (Table 2-5). Administrative data on the residence of non-game hunting licence holders were not available, although the results from the respondent sample who participated in the survey for this study showed a similar geographic distribution.

Table 2-5: Location of game hunting licence holders and other recreational hunters

LOCATION	GAME HUNTING LICENCE HOLDERS	OTHER RECREATIONAL HUNTERS (FROM SURVEY)
New South Wales	69%	74%
Victoria	21%	11%
Queensland	5%	10%
Australian Capital Territory	4%	2%
South Australia	0.3%	1%
Tasmania	0.2%	1%

LOCATION	GAME HUNTING LICENCE HOLDERS	OTHER RECREATIONAL HUNTERS (FROM SURVEY)
Western Australia	0.1%	0.4%
Northern Territory	0.1%	0.8%
Outside Australia	0.01%	0.00%

3 Survey method

INTRODUCTION

To model the economic impact of hunting, it was necessary to first determine hunting-related expenditure. As there was no existing source of data, a survey was conducted among a sample of hunters to gain a detailed profile of hunters' expenditure. This section describes the survey method used to collect expenditure data.

The primary objective of the survey was to collect robust information about hunting-related expenditure that then could be used to model the economic impact of recreational hunting in NSW. To that end, the survey focused on estimating two variables in particular: the total hunting expenditure in NSW, and the geographic distribution of this expenditure within NSW. The aim was to collect information of sufficient quality to be relied upon for policy making.

SURVEY COMPLETION METHOD

All responses were captured using an online survey. Phone contact details were not available to the survey team for any of the hunting populations. Online surveys are an economical way of reaching a large sample, and in some cases, can yield more accurate data as respondents have more time to consider their responses and are more honest in the absence of an interviewer.

The survey was open to respondents 24/7 during the period from 6 February 2017 to 3 March 2017. Average completion time for the survey was 23 minutes.

PROMOTIONAL METHODS

Game hunting licence holders were contacted directly via email and invited to participate in the survey. This promotional method resulted in a large response rate from game hunting licence holders.

Contact details for non-game hunting licence holders were not available to the survey team, thus the survey was promoted through the following methods:

- Print advertising in hunting magazines with a large distribution, that had an issue published around the time of the survey. These publications were *Field and Game Magazine* and *Australian Deer Magazine*. Advertising was also placed in *The Land*, to access hunters who may not read hunting-specific publications.
- Social media channels
- Hunting associations
- The Game Licensing Unit's e-newsletter

The response rate to the survey was also enhanced by:

- Ensuring the survey invitation clearly outlined the benefits of the survey for participants, as well as the aims of the survey and the name of the survey sponsor.
- Offering a suitable prize draw. Specifically, the first prize was a Garmin Rino 650 GPS and handheld radio, second prize was a Moroka.30 blaze orange Alpine Stalker Rucksack, and third prize was a Blackfoot blaze orange Plainsmans jacket and brimmed hat.
- Offering a suitable gift to all survey participants who consent to receive further information from GLU in the form of a blaze orange or camo cap or beanie.

NUMBER OF RESPONDENTS

The number of respondents was set with the goal of attaining robust data on the economic impact of hunting in those local government areas (LGAs) where hunting contributes significantly to the local economy. A target of 2,000 responses was set prior to survey implementation. This is consistent with the sample size from previous GLU surveys.

The final number of respondents who provided usable responses was 2,422. This included 1,690 Restricted Class Licence holders, 465 General Class Licence holders and 267 respondents who did not hold a NSW game hunting licence (Figure 3-1).

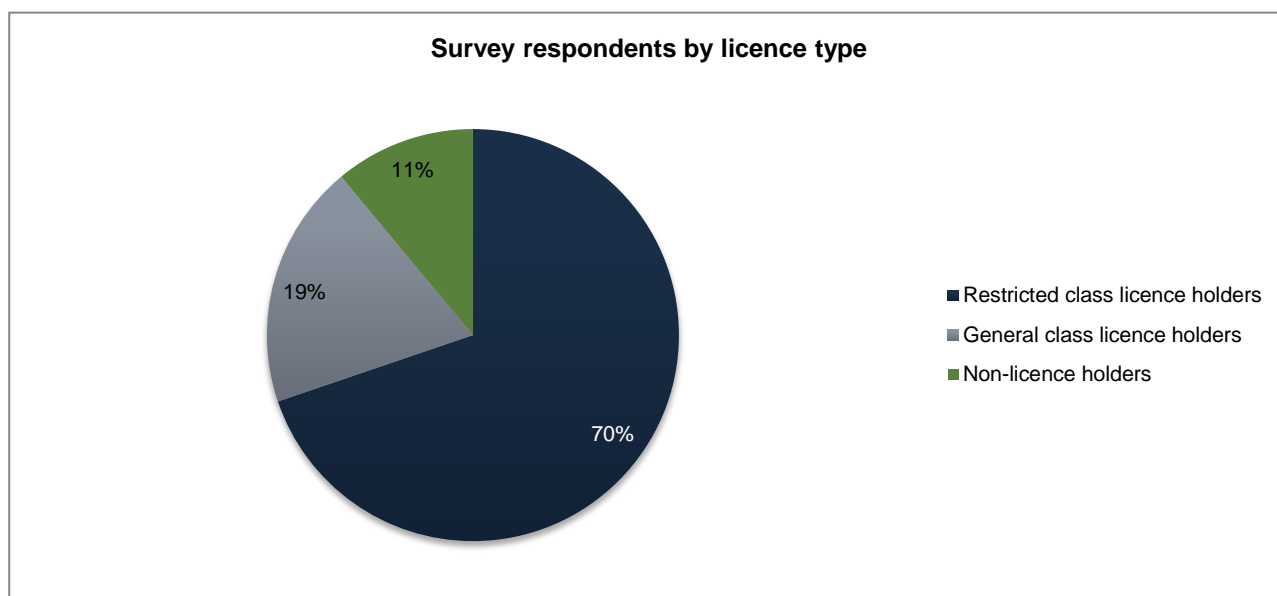


Figure 3-1: Survey respondents by licence type

Reflecting the residence of hunters, the majority (69 per cent) of survey respondents resided in NSW, with a substantial number of respondents from Victoria, Queensland and ACT (Table 3-1).

Table 3-1: Location of survey respondents

LOCATION	NUMBER OF RESPONSES	PERCENTAGE OF RESPONSES
New South Wales	1,683	69%
Victoria	388	16%
Queensland	189	8%
Australian Capital Territory	125	5%

LOCATION	NUMBER OF RESPONSES	PERCENTAGE OF RESPONSES
South Australia	14	0.6%
Northern Territory	10	0.4%
Tasmania	5	0.2%
Western Australia	4	0.2%
Outside Australia	4	0.2%
Total	2,422	100%

Any person completing the survey had their computer ID washed against the sample of previous completes to minimise the likelihood of someone completing the survey more than once.

SURVEY DESIGN

To inform the design of the survey, the research team drew upon the knowledge of the GLU, as well as other surveys including:

- Economic impact of hunting in Victoria survey, conducted by the Department of Environment and Primary Industries¹
- Recreational fishing survey, conducted by Fisheries Research and Development Corporation²
- National Visitor Survey, conducted by Tourism Research Australia³

The survey was pilot tested via 5 depth interviews conducted by a researcher over the phone to ensure the questionnaire flow, wording and structure was working as intended. The survey instrument is provided in Appendix 3.

Expenditure items included in the survey are shown in Table 3-2.

¹ Department of Environment and Primary Industries (2014) *Estimating the economic impact of hunting in Victoria in 2013*

² Fisheries Research and Development Corporation (2012) *Survey of the Social Aspects of Recreational Fishing in South Australia, 2012*

³ Tourism Research Australia (2013) *National Visitors Survey*

Table 3-2: Expenditure items

OFF-TRIP EXPENDITURE		ON-TRIP EXPENDITURE
Hunting specific expenditure	<ul style="list-style-type: none"> ▪ Firearms, bows and other firearm equipment ▪ Ammunition ▪ Licences (game, firearm) ▪ Hunting dog expenses (e.g. dog purchases, training, food, veterinary expenses, registrations etc.) ▪ Training to support hunting activities (e.g. target practice) ▪ Hunting club memberships ▪ Hunting clothing 	<ul style="list-style-type: none"> ▪ Ammunition ▪ Hunting tours/package tour ▪ Fees to landowners ▪ Other hunting equipment (e.g. decoys, clothing)
General expenditure	<ul style="list-style-type: none"> ▪ General hunting equipment (incl. knives, binoculars and safety equipment) ▪ Vehicles/motorbikes (e.g. purchased to enable hunting) ▪ Vehicle equipment/accessories ▪ Vehicle/motorbike maintenance ▪ Camping equipment ▪ Photography equipment 	<ul style="list-style-type: none"> ▪ Fuel ▪ Vehicle/motorbike hire ▪ Vehicle/motorbike repairs ▪ Long-distance transport (e.g. airline, train, coach fares) ▪ Taxis ▪ Accommodation ▪ Takeaways & restaurant meals ▪ Groceries etc. for self-catering at your accommodation ▪ Drinks, alcohol (not already reported above) for consumption at your accommodation

4 Hunting expenditure

INTRODUCTION

The first step in calculating economic impact was to develop expenditure estimates for the hunting population. Expenditure is a measure of how much hunters spend, while on hunting trips and at other times of the year. As some of the goods and services that hunters purchase are imported, or have an imported component, it was necessary to remove this expenditure to determine the local economic impact.

This section describes how the survey results were used to calculate expenditure for the hunter population.

HUNTING CONDITIONS IN 2016

This project estimates the economic impact of hunting expenditure between March 2016 and February 2017. Hunting expenditure will vary depending on seasonal conditions and therefore the economic impact will vary from year to year.

Hunting conditions over this period were significantly different from previous years as a long dry period ended in March and April 2016. Most of NSW received record rainfall throughout much of 2016 and it is likely that due to the extent of wet conditions throughout autumn, winter and spring 2016 hunting opportunities would have been less than in previous dry years or normal rainfall years. This would have largely been due

to restricted access to hunting areas due to the boggy conditions and the likely track damage from the excessive rainfall. This would have particularly affected deer hunting which largely occurs over this period.

In summer 2016-17 and into autumn 2017 conditions returned to normal and over summer were dryer than average. This would have seen a spike in hunting at this time due to the wet weather-related restrictions on hunting earlier in 2016, and a lot of hunters would have taken advantage of the now dryer conditions to get out. However, the season for most deer species is closed over much of this period. Pest species can be legally hunted over this period, although are usually hunted over cooler months.

Increased native game bird hunting opportunities were available over the period as abundant native game birds impacted a rice crop at full capacity (i.e. full water allocations were granted in 2016 meaning more rice could be planted compared to previous years and more water means more ducks).

In summary, it is likely that over the study period:

- Expenditure on deer hunting was *lower* than average
- Expenditure on duck hunting was *higher* than average
- It is difficult to make any statements on expenditure on pest animal hunting over the period.

ESTIMATION OF EXPENDITURE

The first step in estimating economic impact was to estimate hunting expenditure. To estimate total annual expenditure by LGA from the survey, the following data processing steps were undertaken:

1. Data adjustment;
2. Estimation of on-trip and off-trip expenditure by the sampled hunters disaggregated by method (firearms, bows and pig dogging) and by whether the hunting occurred on public land or private land; and
3. Extrapolation of expenditure from the survey sample to the population.

These steps are explained more fully below.

STEP 1: DATA ADJUSTMENT

The following adjustments were made to the base data:

- Data cleaning. There are a number of places with the same names, but which are in different locations within NSW. Eighty-eight such place names were identified in the survey. These duplicate place names were given unique names (locality followed by the postcode, e.g. Alison_2259) and manually replaced in the datasheet by best likely fit.
- Data ranges converted to data values. There were a number of instances where the responses were given as ranges, where a value was required for the analysis.⁴ In most cases mid-point values were used to represent the data range. The exceptions were:
 - The highest range in each set for C6, E4 and E7, i.e. '[X] or more'. Here, conservatively, the minimum value in the range was used, e.g. a response of '\$501 or more' to E4 was converted to \$501;
 - The first two data ranges to E4, where there was a marked left skew to the data, i.e. where there was a large peak in the \$101-\$500 range and more responses in the \$1-\$100 range than the \$500-\$1,000 range. The assumption was that in these instances the responses in the \$101-\$500 range

⁴ These instances were: C4 (proportion of hunting trips in NSW), C6 (number of hunting trips by method), E4 (trip expenditure), E7 (off-trip expenditure) and E8 (proportion of expenditure accounted for by hunting)

were closer to \$100 than \$500 value. The data values chosen in these distributions were \$67 for the range \$1-\$100 and \$234 for the range \$101-\$500.

STEP 2: ESTIMATION OF EXPENDITURE BY METHOD

The purpose of this step was to allocate expenditure by hunting method (firearms, bows and hunting pigs with dogs) and land type (whether the hunting occurred on public land or private land).

For **on-trip expenditure**, survey data were collected about respondents' last trip expenditures, method used and land type. Data were also collected on the total number of hunting trips taken in NSW in the last 12 months and the breakdown of those trips main method and land type.

Expenditure data from respondents' last trips were extrapolated to all the trips respondents took in NSW in the last 12 months. Expenditures were excluded where they occurred outside NSW.

Respondents' **off-trip expenditure** was distributed proportionately by the number of trips they undertook by the methods they used (e.g. if a hunter went on 10 trips, 6 with firearms on private land and 4 with bows on private land then the off-trip expenditures were allocated 60 per cent to firearms on private land and 40 per cent to bows on private land).

Inactive hunters' expenditures were apportioned according to the average share of trips for the cohort of active hunters in the survey with the same firearm status and game hunting licence status profile. Expenditure on items used for purposes other than hunting was adjusted by the proportion of use on hunting, as indicated by respondents (E8 of the survey instrument). Expenditures were excluded where they occurred outside NSW.

STEP 3: SCALING EXPENDITURE FROM THE SAMPLE TO THE POPULATION

Information regarding the characteristics of the population of NSW **game hunting licence holders** was drawn from an extract of the NSW game hunting licence database provided by GLU. The data were analysed to estimate the number of game hunting licence holders in each licence category by age group (under or over 55 years of age) and by residency (NSW resident, non-NSW resident). The NSW game hunting licence population was further split into active (i.e. have hunted in the last 12 months) and non-active hunters (i.e. have not hunted in the last 12 months). This is an important characteristic, as active hunters' expenditure is higher than non-active. The estimate of the proportion of active hunters reported in Game Victoria's (2011) annual mail survey of hunters (62 per cent) was used to estimate the numbers of active and inactive hunters in the population. Table 4-1 shows the resulting population characteristics and the equivalent characteristics of the survey sample; the proportion of active hunters was higher in the survey sample than the assumed population-wide proportion.

Table 4-1: Game hunting licence holders – survey sample vs population

CHARACTERISTIC	SURVEY SAMPLE	POPULATION
Proportion active	87%	62%
Proportion under 55 years old	75%	74%
Proportion residing in NSW	68%	73%
Proportion with a restricted game hunting licence	78%	82%
Size	2,155	19,124

Each individual survey response was weighted such that the aggregated survey sample characteristics matched those of the population. Assuming these characteristics are correlated with hunting behaviour and expenditure, this provides a better estimate of the population than simply weighting each response by the ratio of population size to sample size. The generalised regression method, described in Bethlehem & Keller (1987), was used to weight responses. The method was carried out using an R implementation of the GREGWT macro, initially developed by the ABS to weight household surveys (ABS 2000), that has since been applied by the ABS to other industry and household surveys (ABS 2016, 2017a, 2017b). The average weight resulting from the weighting process was around 9 since the sample size of game hunting licence holders was about one ninth of the population size. The weights were lower (around 4) for respondents who were overrepresented in the sample, such as younger active hunters, and were higher (up to 29) for those who were underrepresented, such as older inactive hunters.

Scaling survey data for the **non-game hunting licence hunting population** is more difficult as data on activity for the population - the proportion of hunters that had been on a hunting trip in the last 12 months - were not available. Further, the sample size of non-game hunting licence hunters was much smaller ($n = 267$) and the estimated population size much larger (over 200,000), meaning that the survey data were heavily leveraged with an average weighting of around 760.

Given the lack of robust benchmarking data and the necessarily high weights, a simplified weighting process was used for these responses. The process involved assuming a proportion of the population to be active, partitioning the survey sample into active ($n = 219$) and inactive ($n = 48$) responses, then weighting each response based on the inverse of its probability of selection. The formula used to calculate these weights is simple since only one characteristic was used (active or inactive):

$$w_a = \frac{1}{\pi_a} = \frac{N_a}{n_a}$$

Where w_a is the weight of a response with characteristic a , π_a is its probability of selection, the inverse of which is the number of cases in the population with the characteristic (N_a) divided by the number of responses in the sample with the characteristic (n_a).

The level of hunter activity - the proportion of hunters that had been on a hunting trip in the last 12 months - was an important determinant of overall impact. As with game hunting licence holders, we assumed that the survey results were biased towards active hunters, and that non-active hunters needed to be weighted more heavily to reflect the population.

For game hunting licence holders, we assumed the same proportion of activity as in Victoria, where robust data are available for activity levels. This proportion is 62 per cent; meaning that 62 per cent of hunters have been hunting in the last 12 months.

For non-game hunting licence holders this benchmarking data were not available. Therefore two scenarios were selected. Table 4-2 shows the resulting weights under two alternative assumptions of population activity level. Under each assumption, inactive responses were weighted more heavily because they were relatively underrepresented in the survey sample.

Table 4-2: Alternative sets of weights for non-game hunting licence hunters

	10 % ACTIVE	62 % ACTIVE
Weight for active responses	92	575
Weight for inactive responses	3,811	1609

FINAL DEMAND PROFILE

In economic modelling terms, expenditure by hunters is referred to as final demand. When the expenditure is disaggregated by industry sector (retail, restaurants, accommodation, etc.) and converted from 'purchasers' prices', into 'basic prices' it is referred to as a final demand profile.

The conversion of expenditure estimates from purchasers (i.e. what hunters pay) to basic prices (i.e. what producers, service providers and other businesses receive) was as follows.

Net taxes (taxes minus subsidies) and marketing and transport margins were reallocated to make the data consistent with accounting conventions used in the RISE model. Purchasers to basic price ratios were derived from ABS (2013, Table 9). This process ensured that margins, such as retail and transport margins, were allocated to the appropriate sectors, taxes were properly identified and that regional imports were not included as part of the regional economic impact estimation process.

The final adjustment to the base data was the allocation of the expenditure data in basic prices to the relevant input-output sectors (78 intermediate sectors, other value added or imports) in which the expenditure occurred, thus compiling a profile of sales to final demand. This process was undertaken for each method and the results aggregated to form a single final demand profile by LGA.

GEOGRAPHY

The unit of geography used for the regional economic analysis was local government area (LGA). Composite regions for Sydney, Newcastle and Wollongong were used that covered the metropolitan LGAs as detailed in Table 4-3.

Table 4-3: Sydney, Newcastle and Wollongong regions defined by LGA

LOCAL GOVERNMENT AREAS	
Sydney	
Bayside (A)	Liverpool (C)
Blacktown (C)	Mosman (A)
Burwood (A)	North Sydney (A)
Camden (A)	Northern Beaches (A)
Campbelltown (C) (NSW)	Parramatta (C)
Canada Bay (A)	Penrith (C)
Canterbury-Bankstown (A)	Randwick (C)
Cumberland (A)	Ryde (C)
Fairfield (C)	Strathfield (A)
Georges River (A)	Sutherland Shire (A)
Hornsby (A)	Sydney (C)
Hunters Hill (A)	The Hills Shire (A)
Inner West (A)	Waverley (A)
Ku-ring-gai (A)	Willoughby (C)
Lane Cove (A)	Woollahra (A)

LOCAL GOVERNMENT AREAS	
Newcastle	Wollongong
Cessnock (C)	Kiama (A)
Lake Macquarie (C)	Shellharbour (C)
Maitland (C)	Wollongong (C)
Newcastle (C)	
Port Stephens (A)	

We estimated economic impact for the metropolitan regions, as well as the 40 non-metropolitan LGAs (out of the total 91) that had the highest hunting expenditure from the survey. The selected regions are detailed in Table 4-4.

Overall, these regions accounted for 90 per cent of the total expenditure by NSW game hunting licence holders in this survey. They accounted for 84 per cent of trip expenditure and 96 per cent of non-trip expenditure.

Table 4-4: High expenditure LGAs^a selected for the impact analysis

LOCAL GOVERNMENT AREAS	
Albury (C)	Muswellbrook (A)
Armidale Regional (A)	Narrabri (A)
Bathurst Regional (A)	Narromine (A)
Bega Valley (A)	Newcastle (metro)
Bourke (A)	Oberon (A)
Byron (A)	Orange (C)
Central Coast (C) (NSW)	Port Macquarie-Hastings (A)
Cobar (A)	Queanbeyan-Palerang Regional (A)
Coffs Harbour (C)	Shoalhaven (C)
Glen Innes Severn (A)	Snowy Monaro Regional (A)
Goulburn Mulwaree (A)	Snowy Valleys (A)
Griffith (C)	Sydney (metro)
Gundagai (A)	Tamworth Regional (A)
Hawkesbury (C)	Tenterfield (A)
Hilltops (A)	Upper Hunter Shire (A)
Inverell (A)	Wagga Wagga (C)
Lismore (C)	Walgett (A)
Lithgow (C)	Warren (A)
Mid-Coast (A)	Warrumbungle Shire (A)
Mid-Western Regional (A)	Western Plains Regional (A)
Moree Plains (A)	Wollongong (metro)
Murray River (A)	

^a Includes Sydney, Newcastle and Wollongong regions

EXPENDITURE RESULTS

Hunting expenditure was estimated to be \$100 million for game hunting licence holders. Expenditure by non-game hunting licence holders was higher, which was expected as there was a much larger number of non-game hunting licence holders (207,000), compared with game hunting licence holders (19,000). Expenditure by non-game hunting licence holders was estimated to be between \$446 million and \$1,366 million.

Table 4-5: Expenditure results (\$m)

	ON-TRIP	OFF-TRIP	TOTAL
Game hunting licence holders	45	55	100
Non-game hunting licence holders	119 - 740	327 - 627	446 - 1,366

Equipment purchases are the main item of expenditure, as shown in Table 4-6.

Table 4-6: Expenditure by category (game hunting licence holders)

CATEGORY	AMOUNT
Hunting equipment (including dogs)	27%
Vehicles (including maintenance)	20%
Food and drink	14%
Fuel	13%
Ammunition	10%
Camping equipment	4%
Accommodation	2%
Other	8%

Further details on hunting expenditure, including expenditure by LGA for game hunting licence holders are available in Appendix 1. Expenditure by LGA was not modelled for non-game hunting licence holders due to the small sample size when broken down by LGA.

5 Economic impact

GENERAL APPROACH

This study is an economic impact assessment, which is concerned with measuring the effect or 'footprint' of a given activity on the economy. This study estimates the footprint of recreational hunting on the NSW economy.

The economic framework for evaluation is cost benefit analysis, used to aid decisions about whether an option is the better alternative over other options or 'doing nothing'. In contrast to cost benefit analysis, economic impact analysis provides information on the distribution of benefits and costs rather than providing an assessment of economic benefits required to justify a project. Importantly, economic impact assessment does not consider explicitly the alternative uses of resources in the project and associated activities.

In principle, there can be net economic benefits attributable to employment distribution, flow-on effects and the regional incidence of economic impacts - benefits that normally would not be captured in a standard cost benefit analysis. For these reasons an impact analysis can be worthwhile in providing information that is complementary to a cost benefit analysis and thereby forms a component of a broader economic and social assessment.

The estimates of economic impact presented in this report are generated by an extension of the conventional input-output method. Over the past decade EconSearch has developed an extended input-output model known as the RISE model (Regional Industry Structure & Employment). These extensions have included the addition of population and unemployment “sectors”, as well as capacity to analyse productivity and price change effects.

The RISE model provides a comprehensive economic framework that is useful for resource planning. Recent applications of the model include assessment of seasonal and area closures for commercial and recreational fishing (EconSearch 2013b), marine park impact assessments (EconSearch 2012), irrigation infrastructure investment impact assessments (EconSearch 2013c) and operational analysis of regional transport infrastructure (EconSearch 2015).

THE RISE ECONOMIC IMPACT MODEL

The RISE model of the NSW and regional economies, constructed by EconSearch for this study, has the input-output (I-O) model as its core. I-O models are widely used to assess the economic impact, including employment and gross regional product, of various economic activities and policies.

To estimate regional economic impacts, the RISE model requires information on the magnitude of various expenditures and where they occur, in this case, gathered from the survey. Also needed is information on how the sectors receiving this expenditure share their expenditures among the various sectors from whom they buy, and so on, for the further expenditure rounds.

Survey data were used to determine the direct expenditures only. For expenditure in subsequent rounds a set of assumptions based on average inter-sector⁵ expenditure were used. For example, if households in the regional economy spent 13 per cent of their income on food on average, it was assumed that, for instance, those working in accommodation establishments that serve hunters did likewise.

The RISE model provides industry multipliers (in terms of employment, gross regional product (GRP) and household income), which are applied directly to expenditure estimates to formulate impact estimates. This approach makes simplifying assumptions about the operation of the economy but has the benefit of being relatively simple and transparent.

ECONOMIC CONCEPTS USED

The primary focus in this report is on the concept of economic activity resulting from expenditure by hunters. The key economic activity indicators considered in this analysis were gross state/regional product, employment and household income.

Gross regional/state product (GRP/GSP): GRP/GSP is a measure of the contribution of an activity to the regional economy. GRP/GSP is measured as value of expenditure less the cost of goods and services (including imports) used in producing the output. It represents payments to the primary inputs of production

⁵ For a detailed account of the data used to develop the RISE models, see EconSearch 2016.

(labour, capital and land).⁶ Using GRP as a measure of economic impact avoids the problem of double counting that may arise from using value of expenditure for this purpose.

Employment: Employment numbers usually are reported in full time equivalent (FTE) units. FTE is a way to measure a worker's involvement in a project. An FTE of 1.0 means that the person is equivalent to a full-time worker, while an FTE of 0.5 signals that the worker is only half-time.

Household income: Household income is a component of GRP/GSP and is a measure of wages and salaries (including superannuation contributions and income tax) and drawings by owner operators.

NSW-WIDE ECONOMIC IMPACT

The results presented below separate the estimated impacts into two categories; direct and flow-on impacts. The direct impacts are simply those associated with the direct expenditures, for instance, impacts in the retail sector (e.g. groceries, ammunition and fuel), accommodation businesses and manufacturing industry (e.g. hunting equipment and accessories). The flow-on impacts are the effects of all expenditure rounds after the direct expenditure, such as the employment and GSP in the businesses that support and supply the retail, accommodation and manufacturing companies. The flow-on impacts are the estimated multiplier effects.

GAME HUNTING LICENCE HOLDERS

The contribution to GSP of hunting by game hunting licence holders was estimated to be **\$119 million** as shown in Table 5-1.

As expected, hunting with firearms was the largest impact at \$92 million (77 per cent of the total), hunting with dogs contributed an estimated \$15 million (13 per cent of the total) and hunting with bows contributed an estimated \$12 million (10 per cent of the total) to GSP. The share between hunting on public and private land was 28 per cent (\$34 million) and 72 per cent (\$85 million) respectively.

The average contribution to GSP per hunter was estimated to be approximately \$6,200.

Table 5-1: Contribution to GSP by hunters with NSW game hunting licences, NSW (\$m)

GSP (\$M)	FIREARMS	BOWS	DOGS	TOTAL
<i>Public land</i>				
Direct	9	1	1	11
Flow-on	20	2	2	24
Total	29	3	3	34
<i>Private land</i>				
Direct	19	3	4	26
Flow-on	44	6	9	59
Total	63	9	13	85
Grand total	92	12	15	119

The employment related to hunting in NSW by hunters with NSW game hunting licences was estimated to be **860 jobs** as shown in Table 5-2. Hunting with firearms was estimated to contribute 664 FTE jobs (77 per cent of the total), hunting with dogs an estimated 110 FTE jobs (13 per cent) and hunting with bows an

⁶ GRP can be measured as the sum of household income, 'gross operating surplus and gross mixed income net of payments to owner managers' and 'taxes less subsidies on products and production'.

estimated 86 FTE jobs (10 per cent). The share between hunting on public and private land was 29 per cent (247 FTE jobs) and 71 per cent (613 FTE jobs) respectively.

Table 5-2: Contribution to employment by hunters with NSW game hunting licences, NSW (FTE)

EMPLOYMENT (FTE)	FIREARMS	BOWS	DOGS	TOTAL
<i>Public land</i>				
Direct	94	9	9	112
Flow-on	114	11	10	135
Total	207	20	19	247
<i>Private land</i>				
Direct	205	30	41	277
Flow-on	251	36	50	337
Total	457	65	91	613
Grand total	664	86	110	860

NON-GAME HUNTING LICENCE HOLDERS

The economic contribution of non-game hunting licence holders was estimated under two scenarios regarding the proportion of hunters active in the past 12 months:

- A low-expenditure assumption of **10 per cent**
- A high-expenditure assumption of **62 per cent**, which aligns with the proportion assumed for game hunting licence holders.

The range of estimates provided by these two scenarios is shown in Table 5-3, with a total economic impact estimated between \$548 million and \$1,612 million. There are significantly more non-game hunting licence holders than game hunting licence holders, hence their larger economic footprint. The average contribution to GSP per hunter was estimated to be between \$2,700 and \$7,900.

Table 5-3: Contribution to GSP by non-game hunting licence holders (\$m)

GSP (\$M)	FIREARMS	BOWS	DOGS	TOTAL
Direct	102 - 274	18 - 50	50 - 174	171 - 498
Flow-on	227 - 617	41 - 112	110 - 385	377 - 1,114
Total	329 - 892	59 - 161	160 - 559	548 - 1,612

Employment associated with the expenditure of non-game hunting licence holders was estimated to be between 3,932 and 11,572 as shown in Table 5-4.

Table 5-4: Contribution to employment by non-game hunting licence holders (FTE)

EMPLOYMENT (FTE)	FIREARMS	BOWS	DOGS	TOTAL
Direct	1,064 - 2,853	193 - 523	527 - 1,856	1,784 - 5,231
Flow-on	1,291 - 3,516	233 - 636	624 - 2,189	2,148 - 6,341
Total	2,355 - 6,369	426 - 1,158	1,151 - 4,045	3,932 - 11,572

ECONOMIC IMPACT BY LGA

The economic impact that results from expenditure by game hunting licence holders was estimated for the 43 regions with the highest direct expenditure. These 43 regions accounted for 90 per cent of total expenditure. More detailed results, in terms of direct, flow-on and total impact, are provided in the Appendix 1. The sample of non-game hunting licence hunters was not large enough within LGAs to estimate economic impact by LGA.

GRP

The largest proportion of economic activity occurred in the Sydney metropolitan region, followed by Newcastle and Wollongong metropolitan regions. This reflects the fact that many hunters live in these regions, and thus purchase equipment as well as on-trip items at the start of the trip near to where they live. The impacts in many of the non-metropolitan LGAs were significant as well. There were seven LGAs with impacts of \$1.0 million GRP. These were Tamworth Regional (\$2.6 million), Lithgow (\$1.3 million), Bathurst (\$1.2 million), Central Coast (\$1.1 million), Murray River (\$1.0 million), Queanbeyan-Palerang (\$1.0 million) and Wagga Wagga (\$1.0 million).

Table 5-5: Contribution to GRP by LGA by game hunting licence holders (\$m)

REGION	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL
Sydney (metro)	11.0	22.3	1.0	2.8	0.4	1.6	39.2
Newcastle (metro)	1.5	2.7	0.2	0.5	0.3	0.5	5.6
Wollongong (metro)	0.6	1.3	0.0	0.2	0.0	0.8	3.0
Tamworth Regional (A)	0.7	0.9	0.1	0.2	0.2	0.6	2.6
Lithgow (C)	0.1	0.6	0.0	0.0	0.0	0.5	1.3
Bathurst Regional (A)	0.3	0.6	0.0	0.1	0.0	0.2	1.2
Central Coast (C) (NSW)	0.2	0.5	0.1	0.1	0.1	0.1	1.1
Murray River (A)	0.2	0.7	0.0	0.0	0.0	0.1	1.0
Wagga Wagga (C)	0.3	0.5	0.0	0.1	0.0	0.1	1.0
Queanbeyan-Palerang Regional (A)	0.3	0.5	0.0	0.0	0.0	0.1	1.0
Albury (C)	0.3	0.5	0.0	0.1	0.0	0.1	0.9
Western Plains Regional (A)	0.1	0.4	0.0	0.1	0.0	0.1	0.8
Orange (C)	0.2	0.4	0.0	0.1	0.0	0.1	0.7
Port Macquarie- Hastings (A)	0.3	0.4	0.0	0.0	0.0	0.0	0.7
Snowy Valleys (A)	0.3	0.2	0.0	0.0	0.1	0.0	0.7

EMPLOYMENT

As with contribution to GRP, the largest proportion of employment impact occurred in the Sydney metropolitan region, followed by Newcastle and Wollongong metropolitan regions. There were five LGAs with impacts of 10 FTE jobs or more: Tamworth Regional (25 FTE jobs), Murray River (12 FTE jobs), Bathurst (11 FTE jobs), Central Coast (11 FTE jobs) and Lithgow (10 FTE jobs).

Table 5-6: Contribution to employment by LGA by game hunting licence holders (FTE)

REGION	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL
Sydney (metro)	70	142	7	18	2	10	250
Newcastle (metro)	14	25	2	4	2	5	51
Tamworth Regional (A)	6	9	1	2	2	6	25
Wollongong (metro)	5	11	0	2	0	7	25
Murray River (A)	2	8	0	0	0	1	12
Central Coast (C) (NSW)	2	5	1	1	1	1	11
Bathurst Regional (A)	3	5	0	1	0	2	11
Lithgow (C)	1	5	0	0	0	4	10
Wagga Wagga (C)	3	5	0	1	0	1	9
Queanbeyan-Palerang Regional (A)	3	5	0	0	0	0	9
Albury (C)	2	5	0	1	0	0	9
Port Macquarie- Hastings (A)	3	4	0	0	0	0	8
Western Plains Regional (A)	1	4	0	1	0	1	7
Snowy Valleys (A)	3	2	0	0	1	0	7
Orange (C)	1	3	0	1	0	0	6

The contribution to employment of hunting is also shown in Figure 5-1.

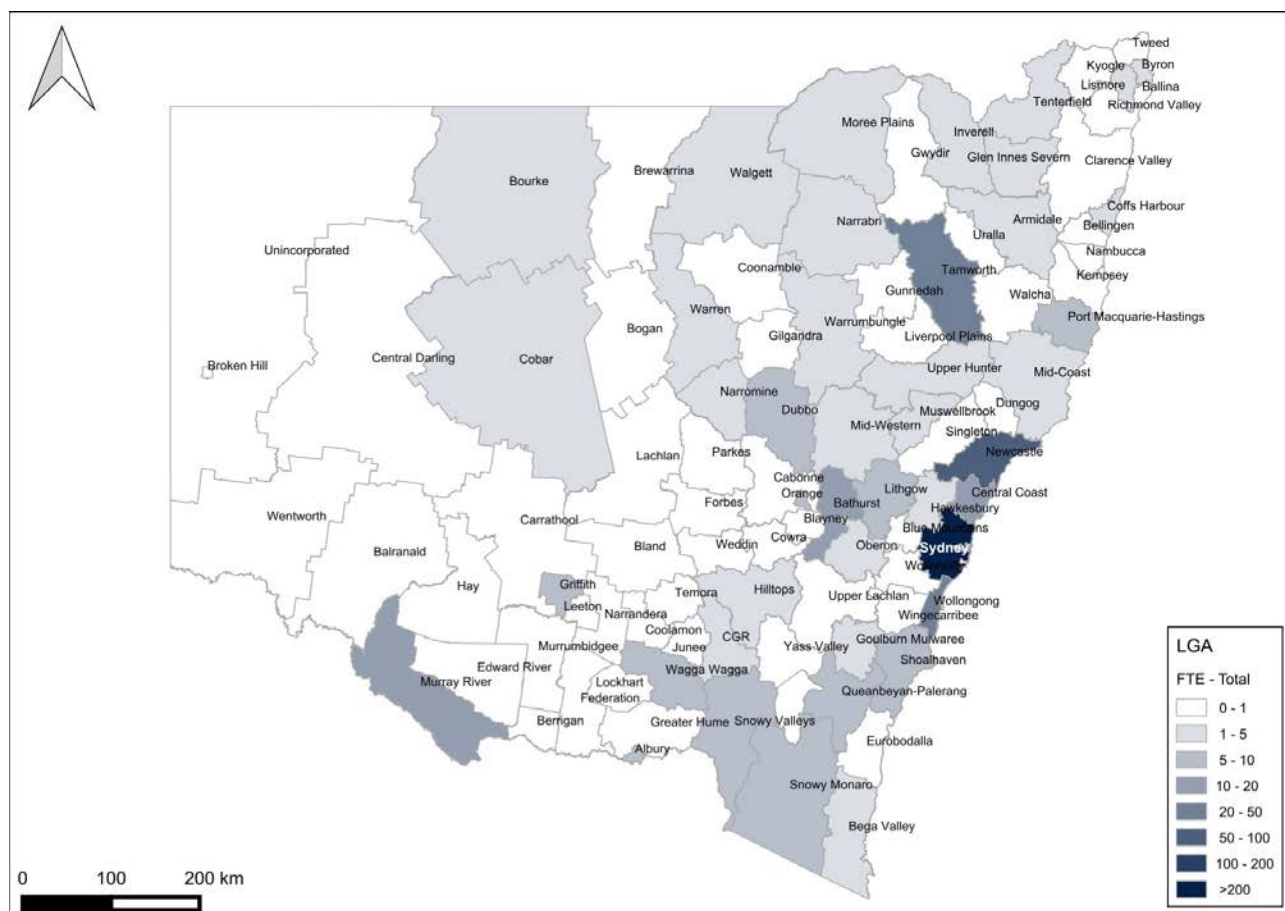


Figure 5-1: Contribution to employment by LGA by game hunting licence holders (FTE)

6 Comparison with Victoria

In 2013 the Victorian Department of Environment and Primary Industries commissioned the project team to estimate the economic impact of recreational hunting in Victoria.

The GSP impact of expenditure by game hunting licence holders in Victoria was \$439m. This is higher than the comparable figure in NSW of \$119 because there were more hunters in Victoria (45,000 versus 19,000 in NSW) and the expenditure per hunter is more in Victoria (\$9,300 versus \$5,300 in NSW). A summary of the results of each study is shown in Table 6-1.

Table 6-1: Comparison of headline results between NSW and Victoria

	VICTORIA (2013)	NSW (2016)
Number of hunters	45,000	19,000
Expenditure	\$417m	\$100m
GSP	\$439m	\$119m
GSP per hunter	\$9,700	\$6,200
Employment	2,382 FTE	860 FTE

7 Further work

FUTURE DATA COLLECTION TO IMPROVE THE ECONOMIC IMPACT RESULTS

To improve the economic impact results, we recommend that GLU gather further information to improve knowledge of several key characteristics of the hunting population. Specifically, we recommend regular, random sampling of the known population, i.e. hunters with NSW game hunting licences, (if possible) hunters with NSW firearm licences endorsed for recreational hunting purposes and bow hunters and pig hunters.

This could be a simple survey that hunters can respond to quickly by e-mail or phone. Key data to collect could include:

- Number of trips taken for a given period (e.g. last 3 months, if survey is undertaken at 3 monthly intervals). The shorter the recall period, the more reliable the data will be. The surveys would need to be throughout the year to ensure that they collect data from different hunting seasons (i.e. the summer duck season, and the mostly winter deer season).
- Per trip
 - Nearest town to hunting location
 - Public or private land (if public, then could ask name of hunting reserve)
 - Method employed (i.e. firearms, bows, dogs)
 - Animal types hunted/targeted and numbers harvested
 - Hunting club membership

The Victorian DPI runs such surveys with their game hunting licensees, randomly selecting a sample of licensees to survey at regular intervals throughout the hunting season.

These data can be combined with the data held on the survey respondents for licensing purposes (e.g. age, licence type, home postcode). These data will build up a more objective picture of the hunting populations that can be used to identify and adjust biases in the hunting expenditure survey and other surveys run on hunters using self-selecting methods (where respondents are broadly advertised to and invited to respond).

Additionally, future surveys could be run in such a way to ensure that the sample is representative of the population (although this was not a problem with this survey for the game hunting licence holders, as the sample mirrors the population in key attributes). This can be done by sending the invitation to participate in randomly generated batches to targeted samples of the population.

PERIODIC UPDATING OF THE RESULTS

It would not be necessary to undertake a survey of the scale and nature undertaken for this study every year to update the economic impact results. A frequency of every 3 to 5 years is recommended. Economic impact results could be estimated in intervening years by:

- Updating the population estimates.
- Updating expenditure for the effects of price inflation.
- Developing assumptions around the level of hunting activity based on the seasons. These assumptions can be developed from information GLU ordinarily collect through their game management programs and through the data collected in the randomly-sampled licensee survey discussed above.

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Appendix 1: Detailed expenditure estimates

EXPENDITURE BY ON-TRIP AND OFF-TRIP ITEMS

Details of total on-trip and off-trip expenditure by game hunting licence holders, by method, are provided in Table A1- 1.

Table A1- 1: NSW expenditure by item and method, hunters *with* NSW game hunting licences (\$m)

	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL
On-trip expenditure							
Fuel	2.8	6.4	0.3	1.0	0.4	2.1	13.0
Vehicle/motorbike hire	0.1	0.1	0.0	0.0	0.0	0.0	0.3
Vehicle/motorbike repairs	0.4	1.0	0.1	0.1	0.1	0.7	2.3
Long-distance transport	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Taxis	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accommodation	0.6	1.2	0.0	0.2	0.0	0.3	2.3
Takeaways & restaurant meals	0.9	1.9	0.1	0.3	0.1	0.6	3.8
Groceries	1.5	3.7	0.1	0.5	0.2	0.8	6.8
Drinks, alcohol	0.8	1.8	0.0	0.3	0.1	0.6	3.7
Ammunition	0.8	3.3	0.1	0.2	0.0	0.7	5.1
Hunting guide fees	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Fees to landowners	0.2	0.9	0.0	0.3	0.0	0.3	1.8
Other hunting equipment	1.1	2.8	0.1	0.5	0.2	0.9	5.6
Other	0.1	0.1	0.0	0.1	0.1	0.2	0.5
Total on-trip expenditure	9.4	23.4	0.9	3.4	1.3	7.2	45.4
Off-trip expenditure							
Firearms, bows and other firearm equipment	3.7	8.1	0.4	1.2	0.1	0.6	14.1
Ammunition	1.4	3.0	0.1	0.3	0.1	0.3	5.1
Firearm licences	0.5	1.0	0.0	0.1	0.0	0.1	1.9
Hunting dog expenses	0.2	0.6	0.0	0.1	0.1	0.5	1.5
Training	0.5	1.0	0.1	0.2	0.1	0.2	2.0
Hunting club memberships	0.5	0.9	0.1	0.1	0.0	0.1	1.8
Hunting clothing	0.7	1.3	0.1	0.2	0.0	0.1	2.6
General hunting equipment	1.0	1.8	0.1	0.3	0.1	0.2	3.5
Vehicles/motorbikes	2.3	4.5	0.2	0.7	0.2	0.7	8.6
Vehicle equipment/accessories	1.4	2.7	0.1	0.4	0.2	0.4	5.2
Vehicle maintenance	0.9	1.6	0.1	0.3	0.1	0.3	3.3
Camping equipment	1.1	2.0	0.1	0.3	0.1	0.2	3.7
Photography equipment	0.2	0.7	0.0	0.1	0.0	0.1	1.1

	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL
Other	0.1	0.1	0.0	0.1	0.0	0.0	0.3
Total off-trip expenditure	14.5	29.4	1.5	4.3	1.1	3.8	54.6
Total expenditure	23.9	52.8	2.4	7.7	2.3	11.0	100.0

Total expenditure across all methods by hunters with NSW game hunting licences was estimated to be \$100.0 million, 45 per cent (\$45.4m) of which was on on-trip items and 55 per cent (\$54.6m) on off-trip items. Of the off-trip expenditure, the main categories were firearms, bows and firearm equipment (\$14.1m), vehicles (\$8.6m), vehicle equipment (\$5.2m) and ammunition (\$5.1m). Fuel (\$13.0m), groceries (\$6.8m), other hunting equipment (\$5.6m) and ammunition (\$5.1m) were the main on-trip expenses.

Table A1- 2 shows expenditure for hunters without NSW game hunting licences, based on a conservative assumption of expenditure estimates that 10 per cent of non-game hunting licence hunters hunted in NSW in last 12 months.

Table A1- 2: Expenditure by item (conservative estimates ^a), NSW, by method, hunters *without* NSW game hunting licences (\$m)

	FIREARMS PRIVATE LAND	BOWS PRIVATE LAND	DOGS PRIVATE LAND	TOTAL
On-trip expenditure				
Fuel	17.0	1.6	14.7	33.3
Vehicle/motorbike hire	0.0	0.1	0.2	0.3
Vehicle/motorbike repairs	3.5	0.9	5.9	10.3
Long-distance transport	0.3	0.3	0.0	0.6
Taxis	0.3	0.0	0.1	0.5
Accommodation	3.6	0.5	2.6	6.8
Takeaways & restaurant meals	5.7	1.1	4.1	11.0
Groceries	9.3	1.9	4.9	16.1
Drinks, alcohol	5.7	0.6	3.4	9.7
Ammunition	8.0	1.0	1.4	10.3
Hunting guide fees	0.0	0.0	0.0	0.0
Fees to landowners	2.5	1.0	2.9	6.4
Other hunting equipment	7.2	2.3	3.4	12.8
Other	0.9	0.0	0.1	1.0
Total on-trip expenditure	64.1	11.3	43.9	119.3
Off-trip expenditure				
Firearms, bows and other firearm equipment	53.2	11.9	21.1	86.2
Ammunition	21.6	1.9	4.8	28.3
Firearm licences	8.6	0.8	2.6	12.0
Hunting dog expenses	6.0	2.5	10.0	18.5
Training	10.0	1.5	3.5	15.0
Hunting club memberships	3.1	0.8	1.3	5.1
Hunting clothing	5.9	1.0	2.2	9.2
General hunting equipment	14.0	2.0	5.3	21.3
Vehicles/motorbikes	21.8	5.5	14.0	41.3
Vehicle equipment/accessories	27.2	2.4	9.4	39.1
Vehicle maintenance	6.2	1.5	5.0	12.7
Camping equipment	13.7	2.2	5.0	21.0
Photography equipment	3.7	1.0	2.1	6.7

	FIREARMS PRIVATE LAND	BOWS PRIVATE LAND	DOGS PRIVATE LAND	TOTAL
Other	8.3	0.6	1.7	10.6
Total off-trip expenditure	203.3	35.6	87.9	326.9
Total expenditure	267.4	47.0	131.8	446.2

Based on conservative assumptions, total expenditure across all relevant methods by hunters without NSW game hunting licences was estimated to be \$446.2 million, 27 per cent (\$119.3m) of which was on on-trip items and 73 per cent (\$326.9m) on off-trip items. Of the off-trip expenditure, the main categories were firearms, bows and firearm equipment (\$86.2m), vehicles (\$41.3m), vehicle equipment (\$39.1) and ammunition (\$28.3m). Fuel (\$33.3m), groceries (\$16.1m) and other hunting equipment (\$12.8m) were the main on-trip expenses.

Expenditure associated with firearm hunting on private land was estimated to be highest among the three methods (\$267.4m), accounting for 60 per cent of total expenditure. Hunting with dogs on private land accounted 30 per cent (\$131.8m) and hunting with bows on private land accounted for 10 per cent (\$47.0m) of total expenditure.

Table A1- 3 shows expenditure estimates for non-game hunting licence holders, but with the optimistic expenditure assumption that 62 per cent of hunters without a NSW game hunting licence hunted in NSW in last 12 months. This is the same level of activity that was assumed for game hunting licence holders.

Table A1- 3: Expenditure by item (optimistic estimates ^a), NSW, by method, hunters *without* NSW game hunting licences (\$m)

	FIREARMS PRIVATE LAND	BOWS PRIVATE LAND	DOGS PRIVATE LAND	TOTAL
On-trip expenditure				
Fuel	105.4	10.1	91.1	206.6
Vehicle/motorbike hire	0.1	0.5	1.3	1.8
Vehicle/motorbike repairs	21.9	5.7	36.5	64.2
Long-distance transport	1.9	1.7	0.2	3.8
Taxis	2.1	0.0	0.8	2.9
Accommodation	22.5	3.3	16.2	42.0
Takeaways & restaurant meals	35.6	7.0	25.6	68.2
Groceries	57.4	11.7	30.7	99.9
Drinks, alcohol	35.4	3.9	21.1	60.4
Ammunition	49.4	6.1	8.7	64.1
Hunting guide fees	0.2	0.0	0.0	0.2
Fees to landowners	15.3	6.3	18.2	39.8
Other hunting equipment	44.4	14.0	21.1	79.5
Other	5.7	0.1	0.6	6.3
Total on-trip expenditure	397.4	70.3	272.1	739.8
Off-trip expenditure				
Firearms, bows and other firearm equipment	98.6	19.9	24.6	143.0
Ammunition	40.5	3.2	7.7	51.3
Firearm licences	12.7	0.8	5.2	18.7
Hunting dog expenses	20.4	3.3	40.9	64.5
Training	13.0	1.5	5.1	19.7
Hunting club memberships	7.4	1.2	1.7	10.3
Hunting clothing	11.7	2.2	4.5	18.4
General hunting equipment	20.3	3.9	13.9	38.1
Vehicles/motorbikes	46.0	11.7	43.4	101.1

	FIREARMS PRIVATE LAND	BOWS PRIVATE LAND	DOGS PRIVATE LAND	TOTAL
Vehicle equipment/accessories	35.1	5.4	31.0	71.5
Vehicle maintenance	18.3	3.5	19.6	41.4
Camping equipment	20.5	3.3	8.9	32.6
Photography equipment	4.8	1.3	3.7	9.8
Other	4.3	0.7	1.0	6.0
Total off-trip expenditure	353.5	61.9	211.1	626.5
Total expenditure	750.8	132.2	483.2	1,366.3

Based on optimistic assumptions, total expenditure across all relevant methods by hunters without NSW game hunting licences was estimated to be \$1,336.3 million, 54 per cent (\$739.8m) of which was on on-trip items and 46 per cent (\$626.5m) on off-trip items. Of the off-trip expenditure, the main categories were firearms, bows and firearm equipment (\$143.0m), vehicles (\$101.1m), vehicle equipment (\$71.5m) and ammunition (\$51.3m). Fuel (\$206.6m), groceries (\$99.9m) and other hunting equipment (\$79.6m) were the main on-trip expenses.

Expenditure associated with firearm hunting on private land was estimated to be highest among the three methods (\$750.8m), accounting for 55 per cent of total expenditure. Hunting with dogs on private land accounted for 35 per cent (\$483.2m) and hunting with bows on private land accounted for 10 per cent (\$132.2m) of total expenditure.

EXPENDITURE BY REGIONAL LGAS AND METRO AREAS

Hunters with NSW Game Hunting Licences

Details of expenditure by local government area (LGA) by method are provided in Table A1- 4. Total expenditure across all LGAs was estimated to be \$100.0 million, 35 per cent (\$35.1m) of which was spent in the Sydney metropolitan region, 52 per cent (\$51.7m) in the non-metropolitan LGAs, and the remaining 13 per cent in the Newcastle and Wollongong metropolitan regions (\$9.5m and \$3.7m respectively). Of the non-metropolitan LGAs, the largest expenditures occurred in Tamworth (\$3.9m), Lithgow (\$2.5m), Murray River (\$2.4m) and Queanbeyan-Palarang Regional (\$2.0m).

Aggregated across all methods, the Sydney, Newcastle and Wollongong metropolitan regions and the 40 non-metropolitan LGAs where highest expenditure occurred accounted for 90 per cent of the total. Expenditure associated with hunting on private land and public land accounted for 71 per cent and 29 per cent of the total NSW expenditure respectively.

Expenditure associated with firearm hunting on private land was estimated to be highest among the six methods (\$52.6m), accounting for 53 per cent of total expenditure. Thirty eight per cent was spent in the Sydney metropolitan region (\$19.8m), 9 per cent in the Newcastle metropolitan region (\$4.6m) and 3 per cent in Wollongong metropolitan region (\$1.7m). Among the non-metropolitan LGAs, the largest expenditures occurred in Murray River (\$1.7m) and Tamworth (\$1.4m).

Expenditure associated with firearm hunting on public land accounted for 24 per cent or \$23.9 million of total NSW hunting expenditure. The Sydney metropolitan region accounted for 41 per cent of the total (\$9.9m), followed by Newcastle metropolitan region (\$2.4m) and Tamworth Regional (\$1.0m).

Expenditure associated with hunting with dogs on private land accounted for 11 per cent or \$11.0 million of total NSW hunting expenditure. The Sydney metropolitan region accounted for 13 per cent of the total (\$1.4m), followed by Newcastle metropolitan region (\$1.0m) and Lithgow (\$1.0m).

Expenditure associated with hunting with dogs on public land accounted for 2 per cent or \$2.3 million of total NSW hunting expenditure. No region had an estimated expenditure above \$1.0m, however the Newcastle metropolitan region accounted for the highest expenditure at 17 per cent of the total (\$0.4m).

Expenditure associated with bow hunting on private land accounted for 8 per cent or \$7.8 million of total NSW hunting expenditure. The Sydney metropolitan region accounted for 33 per cent of the total (\$2.6m), followed by Newcastle metropolitan region (\$0.8m).

Expenditure associated with bow hunting on public land accounted for 2 per cent or \$2.3 million of total NSW hunting expenditure. No region had an estimated expenditure above \$1.0m, however the Sydney metropolitan region accounted for the highest expenditure at 39 per cent of the total (\$0.9m).

Table A1- 4: Expenditure by regional LGAs and metro areas, by method, NSW game hunting licence holders (\$m)

REGION	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL
Sydney (metro)	9.9	19.8	0.9	2.7	0.3	1.4	35.1
Newcastle (metro)	2.5	4.6	0.3	0.7	0.4	0.9	9.5
Tamworth Regional (A)	1.0	1.4	0.1	0.2	0.3	0.9	3.9
Wollongong (metro)	0.7	1.7	0.0	0.3	0.0	0.9	3.7
Lithgow (C)	0.2	1.2	0.0	0.1	0.0	1.0	2.5
Murray River (A)	0.4	1.7	0.0	0.1	0.0	0.3	2.4
Queanbeyan-Palerang Regional (A)	0.6	1.1	0.0	0.1	0.0	0.1	2.0
Bathurst Regional (A)	0.5	0.9	0.1	0.1	0.0	0.3	1.9
Snowy Valleys (A)	0.8	0.6	0.0	0.0	0.1	0.1	1.7
Central Coast (C) (NSW)	0.3	0.7	0.1	0.1	0.1	0.1	1.5
Albury (C)	0.4	0.8	0.0	0.1	0.0	0.1	1.4
Western Plains Regional (A)	0.2	0.8	0.0	0.2	0.0	0.2	1.4
Snowy Monaro Regional (A)	0.4	0.6	0.1	0.2	0.1	0.1	1.4
Wagga Wagga (C)	0.4	0.7	0.0	0.1	0.1	0.1	1.4
Port Macquarie- Hastings (A)	0.4	0.7	0.0	0.1	0.0	0.1	1.3

Appendix 2: Economic impact of hunting by LGA and by method

Table A2- 1: Contribution to GRP (\$m) by LGA, firearms, by hunters *with* a NSW game licence

R E G I O N	P U B L I C L A N D			P R I V A T E L A N D		
	Direct	Flow-on	Total	Direct	Flow-on	Total
Sydney (metro)	3.9	7.1	11.0	7.9	14.4	22.3
Newcastle (metro)	1.0	0.5	1.5	1.7	1.0	2.7
Tamworth Regional (A)	0.3	0.4	0.7	0.4	0.5	0.9
Wollongong (metro)	0.3	0.3	0.6	0.6	0.7	1.3
Lithgow (C)	0.1	0.0	0.1	0.4	0.2	0.6
Murray River (A)	0.1	0.1	0.2	0.4	0.3	0.7
Queanbeyan-Palerang Regional (A)	0.2	0.1	0.3	0.3	0.2	0.5
Bathurst Regional (A)	0.2	0.2	0.3	0.3	0.3	0.6
Snowy Valleys (A)	0.2	0.1	0.3	0.2	0.1	0.2
Central Coast (C) (NSW)	0.1	0.1	0.2	0.2	0.3	0.5
Albury (C)	0.1	0.1	0.3	0.2	0.3	0.5
Western Plains Regional (A)	0.1	0.1	0.1	0.2	0.2	0.4
Snowy Monaro Regional (A)	0.1	0.1	0.2	0.2	0.1	0.3
Wagga Wagga (C)	0.1	0.2	0.3	0.2	0.3	0.5
Port Macquarie-Hastings (A)	0.2	0.1	0.3	0.2	0.2	0.4
Upper Hunter Shire (A)	0.1	0.0	0.1	0.1	0.1	0.2
Orange (C)	0.1	0.1	0.2	0.2	0.2	0.4
Griffith (C)	0.1	0.1	0.1	0.2	0.2	0.4
Mid-Western Regional (A)	0.0	0.0	0.1	0.2	0.2	0.3
Oberon (A)	0.1	0.1	0.2	0.1	0.0	0.1
Inverell (A)	0.0	0.0	0.0	0.1	0.1	0.3
Mid-Coast (A)	0.1	0.1	0.1	0.1	0.1	0.2
Shoalhaven (C)	0.1	0.1	0.1	0.2	0.2	0.3
Bega Valley (A)	0.1	0.0	0.1	0.1	0.1	0.1
Armidale Regional (A)	0.0	0.0	0.0	0.1	0.1	0.2
Tenterfield (A)	0.1	0.0	0.1	0.1	0.1	0.2
Glen Innes Severn (A)	0.0	0.0	0.0	0.2	0.1	0.3
Muswellbrook (A)	0.1	0.0	0.1	0.1	0.1	0.1
Goulburn Mulwaree (A)	0.0	0.0	0.1	0.1	0.0	0.1
Coffs Harbour (C)	0.0	0.0	0.1	0.1	0.1	0.3
Hawkesbury (C)	0.1	0.1	0.1	0.1	0.1	0.2
Bourke (A)	0.0	0.0	0.0	0.2	0.1	0.3
Narrabri (A)	0.0	0.0	0.0	0.1	0.1	0.1
Cobar (A)	0.0	0.0	0.0	0.1	0.1	0.2
Lismore (C)	0.1	0.1	0.2	0.1	0.1	0.2
Warren (A)	0.0	0.0	0.0	0.1	0.1	0.2
Byron (A)	0.0	0.0	0.0	0.1	0.1	0.3
Walgett (A)	0.0	0.0	0.0	0.1	0.1	0.2
Narromine (A)	0.0	0.0	0.0	0.0	0.0	0.0
Hilltops (A)	0.0	0.0	0.0	0.1	0.1	0.2
Moree Plains (A)	0.0	0.0	0.0	0.1	0.1	0.1
Warrumbungle Shire (A)	0.0	0.0	0.0	0.1	0.0	0.1
Gundagai (A)	0.0	0.0	0.0	0.0	0.0	0.0

REGION	PUBLIC LAND			PRIVATE LAND		
43 region sub-total	7.8	10.3	18.1	16.4	21.6	38.0
Other ^a	1.0	9.4	10.5	3.1	22.1	25.2
NSW Total	8.8	19.8	28.6	19.5	43.7	63.2

^a Total GRP is the sum of *direct* and *flow-on* GRP. 'Other' *direct* GRP estimates occur in other LGAs in the state. The *flow-on* GRP estimates occur across all regions in the state, a significant proportion of which will be in the Sydney (metro) region.

Table A2- 2: Contribution to GRP (\$m) by LGA, bows, by hunters *with* a NSW game licence

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow-on	Total
Sydney (metro)	0.4	0.7	1.0	1.0	1.8	2.8
Newcastle (metro)	0.1	0.1	0.2	0.3	0.2	0.5
Tamworth Regional (A)	0.0	0.0	0.1	0.1	0.1	0.2
Wollongong (metro)	0.0	0.0	0.0	0.1	0.1	0.2
Lithgow (C)	0.0	0.0	0.0	0.0	0.0	0.0
Murray River (A)	0.0	0.0	0.0	0.0	0.0	0.0
Queanbeyan-Palerang Regional (A)	0.0	0.0	0.0	0.0	0.0	0.0
Bathurst Regional (A)	0.0	0.0	0.0	0.0	0.0	0.1
Snowy Valleys (A)	0.0	0.0	0.0	0.0	0.0	0.0
Central Coast (C) (NSW)	0.1	0.1	0.1	0.0	0.1	0.1
Albury (C)	0.0	0.0	0.0	0.0	0.0	0.1
Western Plains Regional (A)	0.0	0.0	0.0	0.0	0.0	0.1
Snowy Monaro Regional (A)	0.0	0.0	0.0	0.0	0.0	0.1
Wagga Wagga (C)	0.0	0.0	0.0	0.0	0.1	0.1
Port Macquarie-Hastings (A)	0.0	0.0	0.0	0.0	0.0	0.0
Upper Hunter Shire (A)	0.0	0.0	0.0	0.1	0.1	0.1
Orange (C)	0.0	0.0	0.0	0.0	0.0	0.1
Griffith (C)	0.0	0.0	0.0	0.0	0.0	0.0
Mid-Western Regional (A)	0.0	0.0	0.0	0.0	0.0	0.0
Oberon (A)	0.0	0.0	0.0	0.0	0.0	0.0
Inverell (A)	0.0	0.0	0.0	0.0	0.0	0.0
Mid-Coast (A)	0.0	0.0	0.0	0.0	0.0	0.0
Shoalhaven (C)	0.0	0.0	0.0	0.0	0.0	0.0
Bega Valley (A)	0.0	0.0	0.0	0.0	0.0	0.0
Armidale Regional (A)	0.0	0.0	0.0	0.0	0.0	0.0
Tenterfield (A)	0.0	0.0	0.0	0.0	0.0	0.1
Glen Innes Severn (A)	0.0	0.0	0.0	0.0	0.0	0.0
Muswellbrook (A)	0.0	0.0	0.0	0.0	0.0	0.0
Goulburn Mulwaree (A)	0.0	0.0	0.0	0.0	0.0	0.0
Coffs Harbour (C)	0.0	0.0	0.0	0.0	0.0	0.0
Hawkesbury (C)	0.0	0.0	0.0	0.0	0.0	0.0
Bourke (A)	0.0	0.0	0.0	0.0	0.0	0.0
Narrabri (A)	0.0	0.0	0.0	0.0	0.0	0.0
Cobar (A)	0.0	0.0	0.0	0.0	0.0	0.0
Lismore (C)	0.0	0.0	0.0	0.0	0.0	0.0
Warren (A)	0.0	0.0	0.0	0.0	0.0	0.0
Byron (A)	0.0	0.0	0.0	0.0	0.0	0.0
Walgett (A)	0.0	0.0	0.0	0.0	0.0	0.0
Narromine (A)	0.0	0.0	0.0	0.0	0.0	0.0
Hilltops (A)	0.0	0.0	0.0	0.0	0.0	0.0

REGION	PUBLIC LAND			PRIVATE LAND		
Moree Plains (A)	0.0	0.0	0.0	0.0	0.0	0.1
Warrumbungle Shire (A)	0.0	0.0	0.0	0.0	0.0	0.0
Gundagai (A)	0.0	0.0	0.0	0.0	0.0	0.0
43 region sub-total	0.8	1.0	1.8	2.3	3.0	5.3
Other ^a	0.1	0.9	1.0	0.5	3.3	3.8
NSW Total	0.9	1.9	2.8	2.8	6.2	9.0

^a See previous footnote.

Table A2- 3: Contribution to GRP (\$m) by LGA, dogs, by hunters *with* a NSW game licence

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow-on	Total
Sydney (metro)	0.1	0.2	0.4	0.6	1.0	1.6
Newcastle (metro)	0.2	0.1	0.3	0.3	0.2	0.5
Tamworth Regional (A)	0.1	0.1	0.2	0.3	0.3	0.6
Wollongong (metro)	0.0	0.0	0.0	0.4	0.4	0.8
Lithgow (C)	0.0	0.0	0.0	0.3	0.2	0.5
Murray River (A)	0.0	0.0	0.0	0.1	0.0	0.1
Queanbeyan-Palerang Regional (A)	0.0	0.0	0.0	0.0	0.0	0.1
Bathurst Regional (A)	0.0	0.0	0.0	0.1	0.1	0.2
Snowy Valleys (A)	0.0	0.0	0.1	0.0	0.0	0.0
Central Coast (C) (NSW)	0.0	0.0	0.1	0.0	0.1	0.1
Albury (C)	0.0	0.0	0.0	0.0	0.0	0.1
Western Plains Regional (A)	0.0	0.0	0.0	0.0	0.1	0.1
Snowy Monaro Regional (A)	0.0	0.0	0.0	0.0	0.0	0.0
Wagga Wagga (C)	0.0	0.0	0.0	0.0	0.0	0.1
Port Macquarie-Hastings (A)	0.0	0.0	0.0	0.0	0.0	0.0
Upper Hunter Shire (A)	0.0	0.0	0.0	0.0	0.0	0.1
Orange (C)	0.0	0.0	0.0	0.0	0.0	0.1
Griffith (C)	0.0	0.0	0.0	0.0	0.0	0.0
Mid-Western Regional (A)	0.0	0.0	0.0	0.0	0.0	0.0
Oberon (A)	0.0	0.0	0.0	0.0	0.0	0.0
Inverell (A)	0.0	0.0	0.0	0.1	0.0	0.1
Mid-Coast (A)	0.0	0.0	0.0	0.0	0.0	0.0
Shoalhaven (C)	0.0	0.0	0.0	0.0	0.0	0.0
Bega Valley (A)	0.0	0.0	0.0	0.0	0.0	0.0
Armidale Regional (A)	0.0	0.0	0.0	0.0	0.0	0.1
Tenterfield (A)	0.0	0.0	0.0	0.0	0.0	0.0
Glen Innes Severn (A)	0.0	0.0	0.0	0.0	0.0	0.0
Muswellbrook (A)	0.0	0.0	0.0	0.0	0.0	0.0
Goulburn Mulwaree (A)	0.0	0.0	0.0	0.0	0.0	0.0
Coffs Harbour (C)	0.0	0.0	0.0	0.0	0.0	0.0
Hawkesbury (C)	0.0	0.0	0.0	0.0	0.0	0.0
Bourke (A)	0.0	0.0	0.0	0.1	0.0	0.1
Narrabri (A)	0.0	0.0	0.0	0.1	0.1	0.2
Cobar (A)	0.0	0.0	0.0	0.0	0.0	0.0
Lismore (C)	0.0	0.0	0.0	0.0	0.0	0.0
Warren (A)	0.0	0.0	0.0	0.0	0.0	0.1
Byron (A)	0.0	0.0	0.0	0.0	0.0	0.0
Walgett (A)	0.0	0.0	0.0	0.0	0.0	0.1
Narromine (A)	0.0	0.0	0.0	0.0	0.0	0.1

REGION	PUBLIC LAND			PRIVATE LAND		
Hilltops (A)	0.0	0.0	0.0	0.0	0.0	0.0
Moree Plains (A)	0.0	0.0	0.0	0.0	0.0	0.0
Warrumbungle Shire (A)	0.0	0.0	0.0	0.0	0.0	0.0
Gundagai (A)	0.0	0.0	0.0	0.0	0.0	0.1
43 region sub-total	0.6	0.7	1.3	2.9	3.0	6.0
Other ^a	0.2	1.1	1.3	0.9	5.6	6.5
NSW Total	0.8	1.8	2.6	3.9	8.6	12.5

^a See previous footnote.

Table A2- 4: Contribution to employment (FTE jobs) by LGA, firearms, by hunters *with* a NSW game licence

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow-on	Total
Sydney (metro)	33	37	70	66	75	142
Newcastle (metro)	10	4	14	17	7	25
Tamworth Regional (A)	4	3	6	5	4	9
Wollongong (metro)	3	2	5	6	5	11
Lithgow (C)	1	0	1	4	1	5
Murray River (A)	1	1	2	6	3	8
Queanbeyan-Palerang Regional (A)	2	1	3	3	1	5
Bathurst Regional (A)	2	1	3	3	2	5
Snowy Valleys (A)	2	1	3	2	1	2
Central Coast (C) (NSW)	1	1	2	3	2	5
Albury (C)	1	1	2	3	2	5
Western Plains Regional (A)	1	1	1	2	2	4
Snowy Monaro Regional (A)	1	1	2	2	1	3
Wagga Wagga (C)	2	1	3	2	2	5
Port Macquarie-Hastings (A)	2	1	3	3	1	4
Upper Hunter Shire (A)	1	0	1	1	1	2
Orange (C)	1	1	1	2	2	3
Griffith (C)	1	0	1	2	1	4
Mid-Western Regional (A)	0	0	0	2	1	3
Oberon (A)	1	0	2	1	0	1
Inverell (A)	0	0	0	2	1	3
Mid-Coast (A)	1	0	1	1	1	2
Shoalhaven (C)	1	0	1	2	1	4
Bega Valley (A)	1	0	1	1	1	2
Armidale Regional (A)	0	0	1	2	1	3
Tenterfield (A)	1	0	1	1	1	2
Glen Innes Severn (A)	0	0	0	2	1	4
Muswellbrook (A)	1	0	1	1	0	1
Goulburn Mulwaree (A)	1	0	1	1	0	1
Coffs Harbour (C)	1	0	1	2	1	3
Hawkesbury (C)	1	1	1	1	1	1
Bourke (A)	0	0	0	2	1	3
Narrabri (A)	0	0	0	1	0	1
Cobar (A)	0	0	0	1	1	1
Lismore (C)	1	1	2	1	1	2
Warren (A)	0	0	0	2	1	2
Byron (A)	0	0	0	2	1	3

REGION	PUBLIC LAND			PRIVATE LAND		
Walgett (A)	0	0	0	1	1	2
Narromine (A)	0	0	0	0	0	0
Hilltops (A)	0	0	0	1	1	2
Moree Plains (A)	0	0	0	1	0	1
Warrumbungle Shire (A)	0	0	0	1	0	1
Gundagai (A)	0	0	0	0	0	0
43 region sub-total	77	61	138	163	130	294
Other ^a	17	52	69	42	121	163
NSW Total	94	114	207	205	251	457

^a Total employment is the sum of *direct* and *flow-on* employment. 'Other' *direct* employment estimates occur in other LGAs in the state. The *flow-on* employment estimates occur across all regions in the state, a significant proportion of which will be in the Sydney (metro) region.

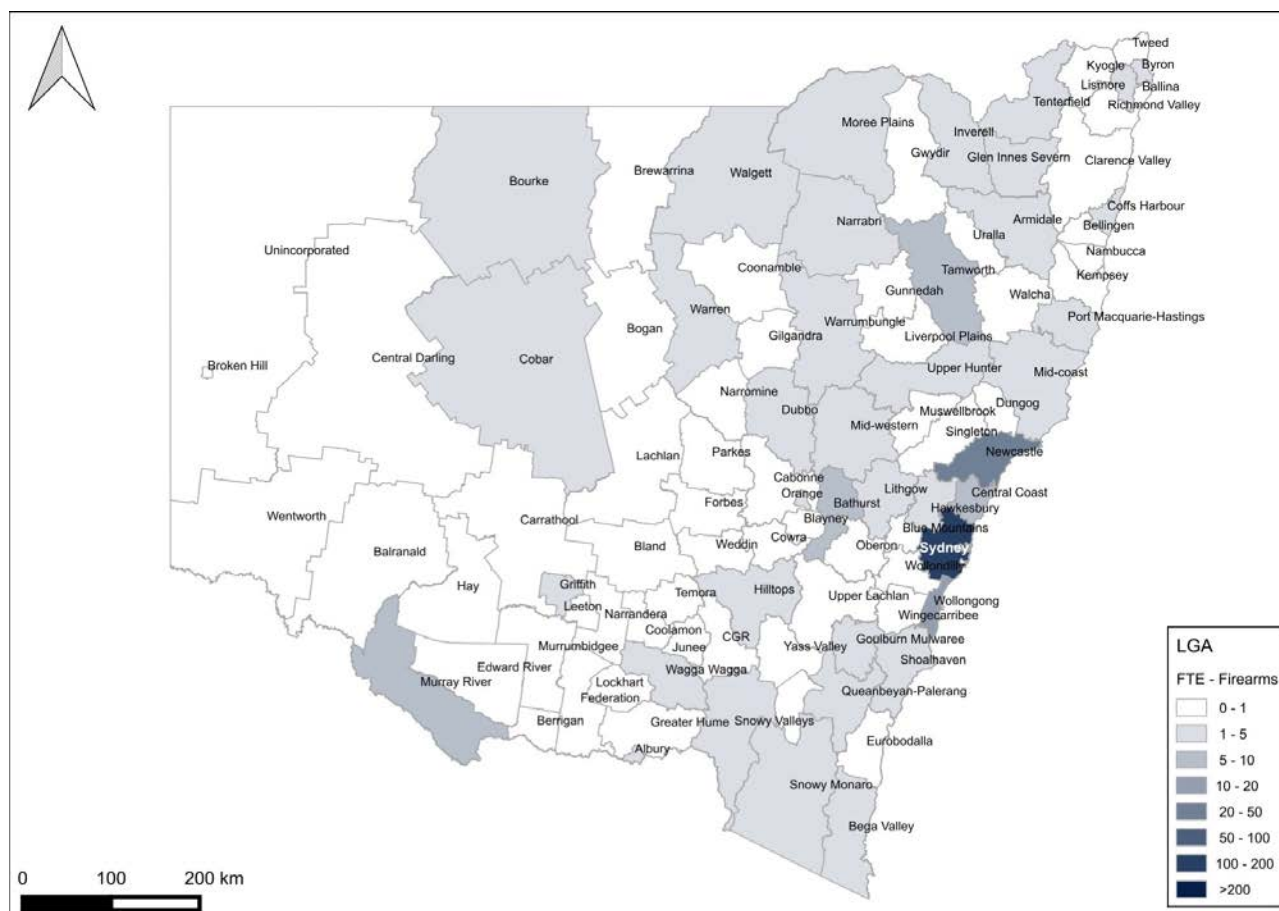


Figure A2- 1: Contribution to employment (FTE jobs) by LGA, firearms

Table A2- 5: Contribution to employment (FTE jobs) by LGA, bows, by hunters *with a NSW game licence*

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow-on	Total
Sydney (metro)	3	3	7	9	10	18
Newcastle (metro)	1	0	2	3	1	4
Tamworth Regional (A)	0	0	1	1	1	2

REGION	PUBLIC LAND			PRIVATE LAND		
Wollongong (metro)	0	0	0	1	1	2
Lithgow (C)	0	0	0	0	0	0
Murray River (A)	0	0	0	0	0	0
Queanbeyan-Palerang Regional (A)	0	0	0	0	0	0
Bathurst Regional (A)	0	0	0	0	0	1
Snowy Valleys (A)	0	0	0	0	0	0
Central Coast (C) (NSW)	1	0	1	1	0	1
Albury (C)	0	0	0	0	0	1
Western Plains Regional (A)	0	0	0	0	0	1
Snowy Monaro Regional (A)	0	0	0	1	0	1
Wagga Wagga (C)	0	0	0	0	0	1
Port Macquarie-Hastings (A)	0	0	0	0	0	0
Upper Hunter Shire (A)	0	0	0	1	0	1
Orange (C)	0	0	0	0	0	1
Griffith (C)	0	0	0	0	0	0
Mid-Western Regional (A)	0	0	0	0	0	0
Oberon (A)	0	0	0	0	0	0
Inverell (A)	0	0	0	0	0	0
Mid-Coast (A)	0	0	0	0	0	0
Shoalhaven (C)	0	0	0	0	0	0
Bega Valley (A)	0	0	0	0	0	1
Armidale Regional (A)	0	0	0	0	0	1
Tenterfield (A)	0	0	0	1	0	1
Glen Innes Severn (A)	0	0	0	0	0	0
Muswellbrook (A)	0	0	0	0	0	0
Goulburn Mulwaree (A)	0	0	0	0	0	0
Coffs Harbour (C)	0	0	0	0	0	0
Hawkesbury (C)	0	0	0	0	0	0
Bourke (A)	0	0	0	0	0	0
Narrabri (A)	0	0	0	0	0	0
Cobar (A)	0	0	0	0	0	0
Lismore (C)	0	0	0	0	0	0
Warren (A)	0	0	0	0	0	0
Byron (A)	0	0	0	0	0	0
Walgett (A)	0	0	0	0	0	0
Narromine (A)	0	0	0	0	0	0
Hilltops (A)	0	0	0	0	0	0
Moree Plains (A)	0	0	0	1	0	1
Warrumbungle Shire (A)	0	0	0	0	0	0
Gundagai (A)	0	0	0	0	0	0
43 region sub-total	8	6	14	23	18	41
Other ^a	2	5	7	6	18	24
NSW Total	9	11	20	30	36	65

^a See previous footnote.



Figure A2- 2: Contribution to employment (FTE jobs) by LGA, bows

Table A2- 6: Contribution to employment (FTE jobs) by LGA, dogs, by hunters *with* a NSW game licence

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow-on	Total
Sydney (metro)	1	1	2	5	5	10
Newcastle (metro)	2	1	2	4	2	5
Tamworth Regional (A)	1	1	2	3	3	6
Wollongong (metro)	0	0	0	4	3	7
Lithgow (C)	0	0	0	3	1	4
Murray River (A)	0	0	0	1	0	1
Queanbeyan-Palerang Regional (A)	0	0	0	0	0	0
Bathurst Regional (A)	0	0	0	1	1	2
Snowy Valleys (A)	0	0	1	0	0	0
Central Coast (C) (NSW)	0	0	1	0	0	1
Albury (C)	0	0	0	0	0	0
Western Plains Regional (A)	0	0	0	0	0	1
Snowy Monaro Regional (A)	0	0	0	0	0	0
Wagga Wagga (C)	0	0	0	0	0	1
Port Macquarie-Hastings (A)	0	0	0	0	0	0
Upper Hunter Shire (A)	0	0	0	0	0	1
Orange (C)	0	0	0	0	0	0
Griffith (C)	0	0	0	0	0	0

REGION	PUBLIC LAND			PRIVATE LAND		
Mid-Western Regional (A)	0	0	0	0	0	0
Oberon (A)	0	0	0	0	0	0
Inverell (A)	0	0	0	1	0	1
Mid-Coast (A)	0	0	0	0	0	0
Shoalhaven (C)	0	0	0	0	0	0
Bega Valley (A)	0	0	0	0	0	0
Armidale Regional (A)	0	0	0	1	0	1
Tenterfield (A)	0	0	0	0	0	0
Glen Innes Severn (A)	0	0	0	0	0	0
Muswellbrook (A)	0	0	0	0	0	0
Goulburn Mulwaree (A)	0	0	0	0	0	0
Coffs Harbour (C)	0	0	0	0	0	0
Hawkesbury (C)	0	0	0	0	0	0
Bourke (A)	0	0	0	1	0	1
Narrabri (A)	0	0	0	1	1	2
Cobar (A)	0	0	0	0	0	0
Lismore (C)	0	0	0	0	0	0
Warren (A)	0	0	0	1	0	1
Byron (A)	0	0	0	0	0	0
Walgett (A)	0	0	0	1	0	1
Narromine (A)	0	0	0	0	0	1
Hilltops (A)	0	0	0	0	0	0
Moree Plains (A)	0	0	0	0	0	0
Warrumbungle Shire (A)	0	0	0	0	0	0
Gundagai (A)	0	0	0	1	0	1
43 region sub-total	7	5	11	32	20	52
Other ^a	2	6	8	10	30	40
NSW Total	9	10	19	41	50	91

^a See previous footnote.

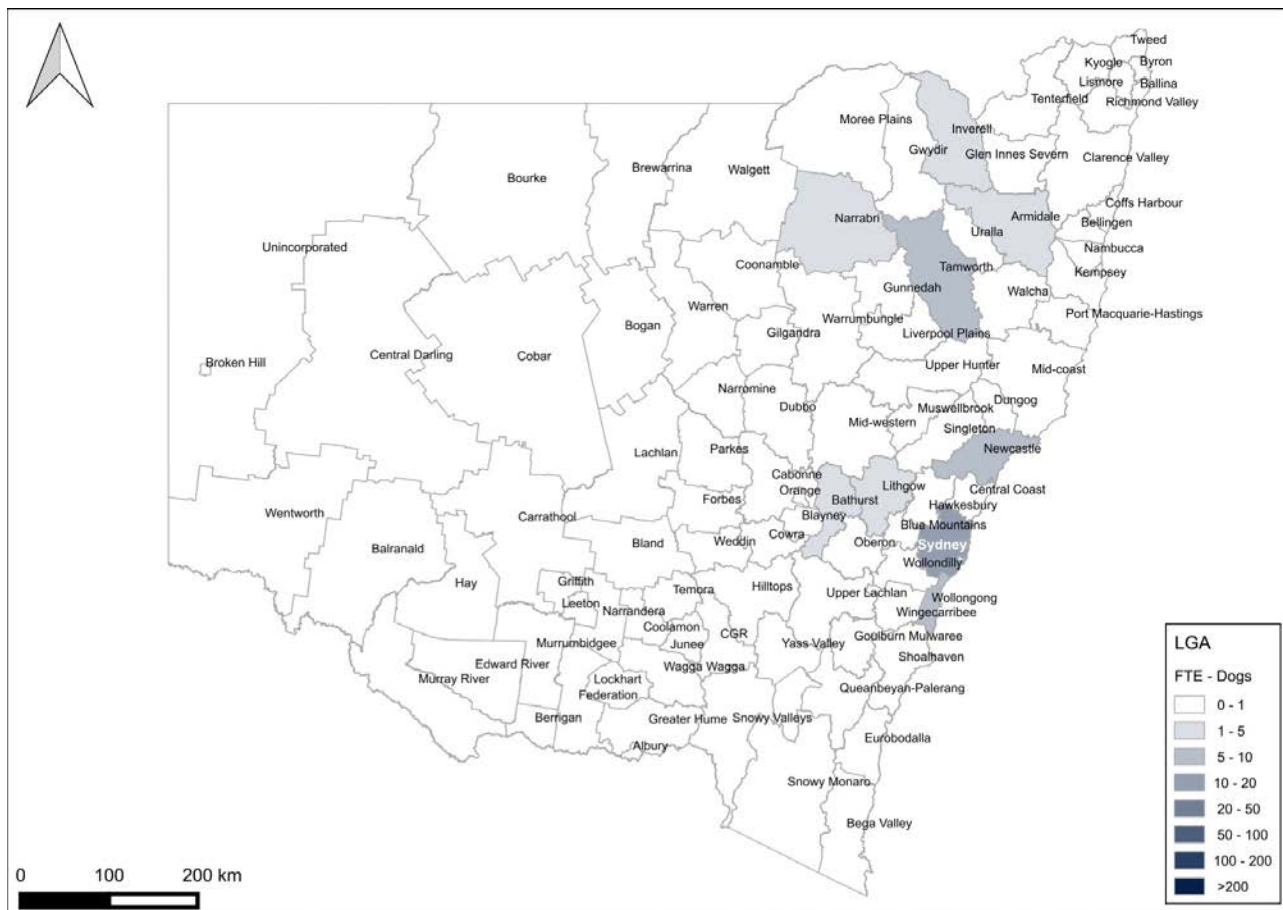


Figure A2- 3: Contribution to employment (FTE jobs) by LGA, dogs

Appendix 3: Survey instrument

NSW Hunting Study Questionnaire

Text below to be shown on website by 5pm, Friday 3rd February 2017, before survey is live:

Thank you for your interest in giving us your opinions regarding the experiences of hunters in NSW.

Please note that this survey will be open from 5:00pm AEST on Monday, 6th February 2017 until 5:00pm AEST on Friday 3rd March 2017.

Shown on <http://nswhunt.dbmweb.com.au/>

Do you hunt in NSW?

[Insert: Hunting image.jpg]

If you do, we would love to hear from you. Your opinions will help the NSW Department of Primary Industries Game Licensing Unit to better understand the experiences of hunters in NSW and the economic and other benefits that hunting brings to the community.

In order to tell us your views, please click 'Start Survey' below. It will take 15 minutes or so to complete the confidential survey. **The survey is best done on a computer.** Although it is possible to complete the survey on a tablet or smartphone, this may take longer.

You will have the opportunity to enter into a game of skill for a chance to win one of three prizes. To enter the game of skill, entrants must be 18 years of age or older, provide their contact details, complete the online survey with valid responses and answer the competition question "Please tell us in 100 words or less your favourite hunting experience in New South Wales. What did you like best about the hunting trip and where did it take place?" during the Promotional Period.

The answer deemed the best answer overall will win one (1) Garmin Rino 650 GPS and handheld radio (valued at \$750), the second best answer overall will win one (1) Moroka.30 blaze orange Alpine Stalker Rucksack (valued at \$500) and the third best answer overall will win one (1) Blackfoot blaze orange Plainsmans jacket and brimmed hat (valued at \$300).

To thank you for your time, we will send you a blaze orange or camo cap or beanie if you choose to provide your details, and this will apply to the first 2,000 respondents with valid survey responses only.

The Terms and Conditions of this skill based competition can be found here <insert link>. All answers will be evaluated by the Game and Pest Management Advisory Board.

The survey will be open between 5pm 6 February 2017 and 5pm 3 March 2017 and will be conducted by DBM Consultants who are a professional market research company, on behalf of the NSW Department of Primary Industries Game Licensing Unit. The information collected will be used for research purposes only. Your personal details will not be disclosed unless you give your permission, and will be held as

strictly confidential, according to the Code of Professional Behaviour set out by the Australian Market and Social Research Society and the Privacy Act, and in accordance with the Privacy policies found on our website <insert link>, and the NSW Department of Primary Industries Game Licensing Unit website, <http://www.industry.nsw.gov.au/privacy>.

[Footer:] To view our privacy policy, please click here <insert link>.

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<Start Survey> button [Go to A1]

Ask All

A1	<p>Firstly, we have a few questions about you.</p> <p>Are you...</p> <ol style="list-style-type: none"> 1. Male 2. Female 3. Other 4. Do not wish to answer 	<p>Compulsory</p> <p>Single response</p> <p>Show grey font for Code 4</p>
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Ask All

A2	<p>And which of the following age ranges do you fall into?</p> <ol style="list-style-type: none"> 1. Under 18 [go to TERMINATE] 2. 18-24 3. 25-29 4. 30-34 5. 35-39 6. 40-44 7. 45-49 8. 50-54 9. 55-59 10. 60-64 11. 65-74 12. 75 and over 13. Do not wish to answer 	<p>Compulsory</p> <p>Single response</p> <p>Show grey font for Code 13</p>
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Ask All

A3	<p>Which state or territory do you currently live in?</p> <ol style="list-style-type: none"> 1. New South Wales 2. Queensland 3. Victoria 4. South Australia 5. Tasmania 6. Western Australia 7. Northern Territory 8. Australian Capital Territory 	<p>Compulsory</p> <p>Single response</p>
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	9. Outside Australia	
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Ask if A3=1 (New South Wales)

A4	<p>Where do you live in New South Wales?</p> <p>Please enter your postcode and your town/suburb.</p> <p>POSTCODE: _ _ _ _ Town/location _____</p> <p>ERROR MESSAGE IF INVALID POSTCODE: Please enter a valid NSW postcode.</p>	<p>4 digits textbox for postcode</p> <p>Drop down list for NSW towns/suburb</p> <p>Compulsory</p>
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Ask All

A5	<p>Are you a member of a hunting association/club?</p> <p>1. Yes</p> <p>2. No</p>	<p>Compulsory</p> <p>Single response</p>
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[Screener questions S1 to S7 are used to determine whether respondents are within scope.]

INTRO2	Now we would like to ask you some questions about the ways in which you hunt and your hunting activity.	
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Ask All

S1	<p>Have you hunted in NSW in the past 12 months?</p> <p>1. Yes</p> <p>2. No</p>	<p>Compulsory</p> <p>Single response</p>
----	--	--

Ask if S1=2 (No) (not hunted in NSW in past 12 months)

S2	<p>Do you plan to go hunting in NSW in the next 12 months?</p> <p>1. Yes</p> <p>2. No [go to TERMINATE]</p>	<p>Compulsory</p> <p>Single response</p>
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Ask All

S3	<p>Do you bow hunt on private land in NSW?</p> <p>1. Yes</p> <p>2. No</p>	<p>Compulsory</p> <p>Single response</p>
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Ask All

S4	<p>Do you hunt pigs with dogs (not with a firearm) on private land in NSW?</p> <p>1. Yes</p> <p>2. No</p>	<p>Compulsory</p> <p>Single response</p>
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Ask All

S5	Do you hunt with an interstate firearms licence endorsed for recreational hunting on private land in NSW? <ol style="list-style-type: none"> Yes No 	Compulsory Single response
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Ask All

S6	Do you hold a NSW game hunting licence? <ol style="list-style-type: none"> Yes, I hold a restricted game hunting licence Yes, I hold a general game hunting licence No, I do not hold a NSW game hunting licence 	Compulsory Single response
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Ask All

S7	Do you hold a current NSW firearm licence endorsed for recreational hunting/vermin control? <ol style="list-style-type: none"> Yes No 	Compulsory Single response
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If S2=2 (No) (not hunted in past 12 months and do not plan to go hunting in next 12 months in NSW), go to TERMINATION

If **ALL** the responses to S3 – S7 are “No” (i.e. IF (AND (S3, S4, S5, S6, S7)) = No), then go to TERMINATION.

If A2=1 (Under 18), go to TERMINATION

TERMINATION	Thank you very much for participating in the survey. The rest of the survey asks about experiences of people aged 18 and over who have hunted, or intend to hunt, in New South Wales.
-------------	--

INTRO3	This next section asks some questions about the main reasons you hunt, and the types of benefits you get from hunting. We also ask a bit more about what is the most important to you about hunting – for example, the type of hunting you do, or the places you go hunting.
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Ask All

B1a	What are the top 5 reasons you like to go hunting? (If the most important reason/s you hunt isn't given, please type them in the space provided). <i>[Please select 5 reasons from the following]</i> <ol style="list-style-type: none"> ...to relax and unwind ...to spend time in the outdoors ...to spend time with family ...to spend time with friends 	Check Boxes Compulsory 5 responses Multiple response Randomise codes 1 to 16
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	5. ...to meet new people 6. ...to get away from my day-to-day life 7. ...to continue a family or cultural tradition of hunting 8. ...because it is challenging 9. ...to get food for myself or my friends/family 10. ...to get exercise 11. ...to spend time in places that are special to me 12. ...to reduce pest species populations 13. ...for the sense of achievement from a successful hunt 14. ...to have the opportunity of taking a trophy 15. ...to enjoy solitude and quiet time 16. ...to enjoy the thrill of hunting 17. ...other (please describe)	
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Ask All

B1b	<p>From the remaining reasons, what are the 5 <u>least</u> important reasons you like to go hunting?</p> <p><i>[Please select 5 reasons from the following]</i></p> <p>DP Instruction: Insert answers from B1a that were not selected (Do not include 'Other').</p>	Check Boxes Compulsory 5 responses Multiple response Randomise remaining codes
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Ask All

B2	<p>Some people like to hunt in the same places each year, or for the same type of game, while other people vary the places they hunt and the species they hunt for.</p> <p>To what extent do you agree or disagree with the following statements about your hunting?</p>	Compulsory Single response per row Randomise
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		Strongly Disagree					Strongly Agree	
		1	2	3	4	5	6	7
1.	I usually hunt for the same type of game (e.g. deer or quail)							
2.	I usually hunt in the same places each year							
3.	The places I go hunting are special to me							
4.	If I hunted for different game than normal (e.g. for ducks instead of deer), I would enjoy it just as much							
5.	I change the places where I go hunting regularly							
6.	I usually go hunting during school holidays or public holidays							
7.	If I couldn't hunt for the type of game I currently hunt, I would swap to hunting different species instead							
8.	If I couldn't hunt in the places I currently hunt, I would swap to hunting in new locations							

Ask All

B3	<p>Now, we want to know a bit about what you think about your hunting trips.</p> <p>To what extent do you agree or disagree with the following statements?</p> <p>My hunting trips...</p>	<p>Compulsory</p> <p>Single response per row</p> <p>Randomise</p>						
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		Strongly Disagree				Strongly Agree		
		1	2	3	4	5	6	7
a.	...let me get away from my day-to-day routine							
c.	...make me feel proud							
d.	...make me feel confident							
e.	...are physically risky							
f.	...help me connect to nature							
g.	...let me spend more time outdoors than I would otherwise							
h.	...let me enjoy nature							
i.	...make me feel more connected to the places I hunt in							
j.	...help me meet new people							
k.	...help me spend more time with friends							
l.	...help me connect to my community							
m.	...let me meet different types of people I wouldn't normally get to meet							
n.	...let me spend time with other people who have a similar outlook to me							

INTRO4	Now we would like to find out about the hunting trips you have been on.
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Ask all

C1	<p>Firstly, how many hunting trips have you been on in the last 12 months, including NSW <u>and</u> interstate hunting trips?</p> <p>Please count both overnight and day trips. An overnight trip is where you stayed overnight in another location. A day trip is where you travelled more than 50km and were away from home for at least 4 hours.</p> <p>_____ trips</p>	<p>Compulsory</p> <p>Numeric field</p> <p>Allow zero</p>
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Ask if S1=1 (Yes) (hunted in NSW in last 12 months) AND C1>0 (at least one trip)

C2	Did you hunt outside New South Wales in the past 12 months? <ol style="list-style-type: none"> No, hunted within NSW only Yes, hunted both within and outside NSW 	Compulsory Single response
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Ask if C2=2 (hunted in NSW and outside NSW)

C3	How many of these hunting trips in the last 12 months were in New South Wales? _____ trips	Compulsory Numeric field Zero not allowed
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Ask if S2=1 (Yes) (plan to hunt in NSW in next 12 months)

[C4 addresses 2 categories:

- S1=No (S2=Yes), C1>0, i.e. active, not hunted in NSW but plan to hunt in NSW in next 12 months
- S1=No (S2=Yes), C1=0, i.e. inactive (i.e. not hunted) but plan to hunt in NSW in next 12 months]

C4	Approximately what proportion of the hunting trips you plan for the <u>next 12 months</u> will be in New South Wales? <ol style="list-style-type: none"> 1% to 25% of all hunting trips Between 26% and 50% of all hunting trips Between 51% and 75% of all hunting trips More than 75% of all hunting trips None (that is, no hunting trips in NSW) [go to TERMINATE] <p>Note: If C4=5 (no hunting trips in NSW next 12 months) then TERMINATE. [Theoretically, C4_5 is not necessary because respondents should have answered 'No' to S2, but we don't want people who answered S2 incorrectly getting stumped at C4 and 'fudging' an answer by choosing 1 to 4 and getting into the survey.]</p>	Compulsory Single response
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Ask if C2=1 OR C3>0 (at least one hunting trip in NSW in last 12 months) AND S6=1 (NSW restricted game hunting licence).

C5	Have you hunted on NSW public land in the last twelve months? <ol style="list-style-type: none"> Yes, hunted on NSW public land only Yes, hunted on both NSW public land and private land No, hunted on NSW private land only 	Compulsory Single response
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Ask if C2=1 OR C3>0 (at least one trip in NSW in last 12 months)

C6	Just thinking about your hunting trips in New South Wales in the past 12 months, on how many trips was each of the following hunting methods the MAIN METHOD used? For each trip, consider the hunting method you used the most, that is, only count one hunting method per trip. If you didn't use that method please choose "Never main method"	Compulsory Single response per row

		Never main method	1-3 trips	4-6 trips	7-12 trips	13-24 trips	25-49 trips	50 or more trips
1.	Firearms on public land [Show if S6=1 AND C5=1, 2]	7	1	2	3	4	5	6
2.	Firearms on private land [Show if (S5=1) OR (S7=1 AND S6=2, 3) OR (S7=1 AND S6=1 AND C5=2, 3)]	7	1	2	3	4	5	6
3.	Bows on public land [Show if S6=1 AND C5=1, 2]	7	1	2	3	4	5	6
4.	Bows on private land [Show if S3=1]	7	1	2	3	4	5	6
5.	Hunting pigs with dogs on public land [Show if S6=1 AND C5=1, 2]	7	1	2	3	4	5	6
6.	Hunting pigs with dogs on private land [Show if S4=1]	7	1	2	3	4	5	6

Ask if C6_1=1 to 6 (at least one trip where main method used is 'firearms on public land')

C7a	<p>Thinking about all the trips when you hunted using FIREARMS on <u>public</u> land in New South Wales in the last 12 months, which were the nearest town/s to where you hunted?</p> <p>Please indicate the <u>most frequent town</u> under "Town 1", second most frequent under "Town 2", etc.</p> <p><u>For computer users</u>, click on the drop down menu and start typing. Then select the town.</p> <p><u>For tablet or smartphone users</u>, touch the drop down menu and start scrolling.</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <th></th> <th></th> <th>Town 1</th> <th>Town 2</th> <th>Town 3</th> <th>Town 4</th> </tr> <tr> <td>a.</td> <td>Firearms on public land</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>								Town 1	Town 2	Town 3	Town 4	a.	Firearms on public land					<p>Drop down list of NSW towns</p> <p>Compulsory</p> <p>Maximum four locations</p>
		Town 1	Town 2	Town 3	Town 4														
a.	Firearms on public land																		

Ask if C6_2=1 to 6 (at least one trip where main method used is 'firearms on private land')

C7b	<p>Thinking about all the trips when you hunted using FIREARMS on <u>private</u> land in New South Wales in the last 12 months, which were the nearest town/s to where you hunted?</p> <p>Please indicate the most frequent town under "Town 1", second most frequent under "Town 2", etc.</p> <p>To select your town, click on the drop down menu and start typing. From this list, please select the right town.</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <th></th> <th></th> <th>Town 1</th> <th>Town 2</th> <th>Town 3</th> <th>Town 4</th> </tr> <tr> <td>b.</td> <td>Firearms on private land</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>								Town 1	Town 2	Town 3	Town 4	b.	Firearms on private land					<p>Drop down list of NSW towns</p> <p>Compulsory</p> <p>Maximum four locations</p>
		Town 1	Town 2	Town 3	Town 4														
b.	Firearms on private land																		

Ask if C6_3=1 to 6 (at least one trip where main method used is 'bows on public land')

C7c	Thinking about all the trips when you hunted using BOWS on <u>public</u> land in New South Wales in the last 12 months, which were the nearest town/s to where you hunted?					Drop down list of NSW towns Compulsory Maximum four locations
	Please indicate the most frequent town under "Town 1", second most frequent under "Town 2", etc. To select your town, click on the drop down menu and start typing. From this list, please select the right town.					
			Town 1	Town 2	Town 3	
	c.	Bows on public land				

Ask if C6_4=1 to 6 (at least one trip where main method used is 'bows on private land')

C7d	Thinking about all the trips when you hunted using BOWS on <u>private</u> land in New South Wales in the last 12 months, which were the nearest town/s to where you hunted?					Drop down list of NSW towns Compulsory Maximum four locations
	Please indicate the most frequent town under "Town 1", second most frequent under "Town 2", etc. To select your town, click on the drop down menu and start typing. From this list, please select the right town.					
			Town 1	Town 2	Town 3	
	d.	Bows on private land				

Ask if C6_5=1 to 6 (at least one trip where main method used is 'hunting pigs with dogs on public land')

C7e	Thinking about all the trips when you hunted PIGS WITH DOGS on <u>public</u> land in New South Wales in the last 12 months, which were the nearest town/s to where you hunted?					Drop down list of NSW towns Compulsory Maximum four locations
	Please indicate the most frequent town under "Town 1", second most frequent under "Town 2", etc. To select your town, click on the drop down menu and start typing. From this list, please select the right town.					
			Town 1	Town 2	Town 3	
	e.	Hunting pigs with dogs on public land				

Ask if C6_6=1 to 6 (at least one trip where main method used is 'hunting pigs with dogs on private land')

C7f	<p>Thinking about all the trips when you hunted PIGS WITH DOGS on <u>private</u> land in New South Wales in the last 12 months, which were the nearest town/s to where you hunted?</p> <p>Please indicate the most frequent town under “Town 1”, second most frequent under “Town 2”, etc.</p> <p>To select your town, click on the drop down menu and start typing. From this list, please select the right town.</p>					<p>Drop down list of NSW towns</p> <p>Compulsory</p> <p>Maximum four locations</p>	
			Town 1	Town 2	Town 3		Town 4
	f.	Hunting pigs with dogs on private land					

Ask if C6_landtype = BOTH public and private land for any hunting method AND C6_method=1 to 6 (at least one trip).

(For example, ask if C6_1 and C6_2 is shown but do not ask if C6_1 and C6_3 is shown.)

C8	<p>Thinking of your <u>most recent hunting trip</u> in NSW, was it on <u>public</u> land?</p> <p>1. Yes, it was on public land</p> <p>2. No, it was on private land</p>	<p>Compulsory</p> <p>Single response</p>
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Ask if C6 is asked (i.e. C2=1 OR C3>0) AND (C6=at least 2 methods AND C6_method=1 to 6 (at least one trip))
(i.e. At least one trip for two or more hunting methods)

C9	<p>Which of the following hunting methods did you use during your <u>most recent hunting trip</u> in NSW?</p> <p>Please only consider the method you used the most.</p> <p>[Methods shown where C6_1 to C6_6 ≠Never (i.e. codes 1 to 6)]</p> <ol style="list-style-type: none"> 1. Firearms 2. Bows 3. Hunting pigs with dogs 	<p>Compulsory Single response</p>
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Ask if C6=at least one method AND C6_method=1 to 6 (at least one trip is recorded at C6)

INTRO5	<p>Now we would like you to think about your <u>most recent hunting trip</u> in NSW where you hunted using</p> <p><IF C6 = at least one trip (codes 1 to 6) for ONLY one row (any hunting method on landtype), then INSERT C6_hunting method+land_type (including fullstop)></p> <p><IF C6 = at least one trip (codes 1 to 6) for BOTH the SAME hunting method, then INSERT C6_hunting method > on <IF C8=1, INSERT “public land.” OR IF C8=2, INSERT “private land.”></p> <p><IF C6 = at least one trip (codes 1 to 6) for the SAME land type, then INSERT hunting method FROM C9> on <C6_landtype (including fullstop)></p> <p><IF C8 AND C9 are asked, then INSERT hunting method FROM C9> on <IF C8=1, INSERT “public land.” OR IF C8=2, INSERT “private land.”></p>	
E1	<p>When did you take this trip?</p> <ol style="list-style-type: none"> 1. March 2016 2. April 2016 3. May 2016 4. June 2016 5. July 2016 6. August 2016 7. September 2016 8. October 2016 9. November 2016 10. December 2016 11. January 2017 12. February 2017 	<p>Compulsory Single response</p>

Ask if C6=at least one method AND C6_method=1 to 6 (at least one trip is recorded at C6) AND if more than one location selected at C7a to C7f

E2	<p>Where did you mainly hunt on that trip?</p> <p>1. [Locations selected from C7a to C7f corresponding to [HUNTING METHOD AND LOCATION] appear. If 4 locations specified at C7a to C7f, 'Other (please specify)' also appears]</p>	<p>Compulsory Single response</p>
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Ask if C6=at least one method AND C6_method=1 to 6 (at least one trip is recorded at C6)

INTRO6	<p>Still thinking about your most recent hunting trip in NSW where you hunted using <INSERT Hunting method from INTRO5 > on <INSERT landtype from INTRO5></p>
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Ask if C6=at least one method AND C6_method=1 to 6 (at least one trip is recorded at C6)

E3	<p>During this hunting trip in New South Wales, what did you spend money on?</p> <p>Please include anything <u>you</u> paid for, whether by cash, EFTPOS, cheque, credit card or any other means. If you paid for other people at any stage (for example, if you paid for someone else's dinner) then do include that amount. But if someone else paid for you, then exclude that amount.</p> <ol style="list-style-type: none"> 1. Fuel 2. Vehicle/motorbike hire 3. Vehicle/motorbike repairs 4. Long-distance transport (e.g. airline, train, coach fares) 5. Taxis 6. Accommodation 7. Takeaways & restaurant meals 8. Groceries etc. for self-catering at your accommodation 9. Drinks, alcohol (not already reported above) for consumption at your accommodation 10. Ammunition 11. Hunting tours/package tours, hunting guide fees 12. Fees to landowners 13. Other hunting equipment (e.g. decoys, clothing) 14. Other (please specify) 15. Not applicable – I did not spend any money on this trip 	<p>Compulsory Multiple response 'Not applicable' removes all other selections</p>
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Ask if E3≠15 (codes 1 to 14) (spent money on at least one item in this trip)

E4	<p>And during your <u>most recent hunting trip</u> in NSW where you hunted with <INSERT Hunting method from INTRO5 > on <INSERT landtype from INTRO5>, approximately how much did you spend on these items?</p> <p>Please include:</p> <ul style="list-style-type: none"> Anything <u>you</u> paid for, whether by cash, EFTPOS, cheque, credit card or any other means. Any money you paid for other people and you were not reimbursed (e.g. if paid for someone else's meal) <p>Please exclude:</p> <ul style="list-style-type: none"> Any money paid on your behalf by someone else who travelled with you on the hunting trip. 	Compulsory Single response per row						
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		\$1-\$20	\$21-\$50	\$51-\$100	\$101 - \$200	\$201 - \$500	\$501 or more
a.	[Responses from E3]	1	2	3	4	5	6
b.							

Ask If E3= 1 to 5, 7 to 14 (any item except 6 (accommodation) or 15 (not applicable))

E5a	<p>What was the location of the business/es from which you bought these items?</p> <p>For example, were the items bought in your home town/city, at the main hunting destination or at another location?</p> <p>If you bought items from more than one location, please select the location where the <u>most money was spent</u>.</p>	Compulsory Single response per row				
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		Home	At the destination	Another town in NSW	Other
a.	[Responses from E3]	1	2	3	4
b.					

Ask If E5a=3 for any item (another town in NSW)

E5b	Which NSW town/s did you buy these item/s from?		Single response per row
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		Which NSW town or city?
a.	[Responses from E5a where E5a=3]	[NSW locations dropdown]

Ask All

INTRO7	<p>Now we'd like you to consider what you've spent when you've NOT been on a hunting trip, to support your hunting activities.</p> <p>Please don't include expenses made during hunting trips; this type of expense has been addressed in the previous section.</p>
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Ask All [including those who have not been hunting in the last 12 months]

[Note: At category 3 we do not ask for NSW hunting licence costs because we will estimate NSW game licence costs outside the survey]

E6	<p>During the last 12 months, which of the items from the following list have you spent money on to <u>support your hunting activities</u>?</p> <ol style="list-style-type: none"> 1. Firearms, bows and other firearm equipment 2. Ammunition 3. Firearm licenses 4. Hunting dog expenses (e.g. dog purchases, training, food, veterinary expenses, registrations etc.) 5. Training to support your hunting activities (e.g. target practice) 6. Hunting club memberships 7. Hunting clothing 8. General hunting equipment (incl. knives, binoculars and safety) 9. Vehicles/motorbikes (purchased with hunting in mind) 10. Vehicle equipment/accessories 11. Vehicle maintenance 12. Camping equipment 13. Photography equipment 14. Other (please specify) _____ 15. Not applicable – I did not spend any money to support hunting activities in the past 12 months 	<p>Compulsory</p> <p>Multiple response</p> <p>‘Not applicable’ removes all other selections</p>
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Ask if E6#15 (codes 1 to 14) (spent money on at least one item that support hunting activities)

E7	And during the past 12 months, approximately how much have you spent on these items?	Compulsory Single response per row						
a.	[Responses from E6]	\$1-\$100	\$101-\$500	\$501-\$1,000	\$1,001 - \$2,000	\$2,001 - \$5,000	\$5,001 - \$10,000	\$10,001 or more

Ask if E6=8 to 14 (general hunting equipment to Other).

E8	And approximately what percentage of the use of these items has been on <u>hunting activities</u> versus non hunting activities?	Compulsory Single response per row			
	Percentage accounted for by hunting...	0%-25%	26%-50%	51%-75%	76%-100%
a.	[Responses from E6]	1	2	3	4
b.					

Ask if E6≠15 (codes 1 to 14) (spent money on at least one item that support hunting activities)

E9	What is the location of the business/es from which you usually buy these items? For example, for online purchases, please consider the town or city (if within NSW) or state or country (if outside NSW) where your usual vendor is located.	Compulsory Single response per row						
		Sydney	Wollongong	Newcastle	In a NSW town or city other than Sydney, Wollongong or Newcastle	Interstate (e.g. VIC, QLD)	Overseas	Unsure
a.	[responses from E6]	1	2	3	4	5	6	7
b.								

Ask if E9=4 for at least one item (in a NSW town or city other than Sydney, Wollongong or Newcastle)

E10	At which NSW town or city do you usually buy these items?	Compulsory Single response per row
a.	[Responses from E9 where E9=4]	

	Which NSW town or city?
	<i>[NSW locations dropdown]</i>

Ask All

F1	<p>Illegal hunting refers to hunting that takes place on private and public land without the permission of the landholder, or any hunting carried out in violation of game hunting regulations.</p> <p>To what extent do you agree or disagree with the following statement</p>	<p>Compulsory</p> <p>Single response</p>
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	<p>Strongly Disagree</p> <p>1 2 3 4 5 6 7</p> <p>Strongly Agree</p>
You are in favour of the authorities in NSW doing all that they can to stop illegal hunting	

Ask All

F2	<p>Which of the following were you aware of before today?</p> <p>Please select a response for each statement.</p>	<p>Compulsory</p> <p>Single response per statement</p> <p>Randomise statements</p>
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	<p>Yes, was aware before today</p> <p>1</p>	<p>No, not aware before today</p> <p>2</p>	<p>Don't know/Can't Say</p> <p>98</p>
Restricted Game license holders in NSW are able to access the Public Land Hunting Program	1	2	98
Game license holders in NSW are able to access the Native Game Bird Management Program	1	2	98
Game license holders in NSW have access to education and training opportunities so they can meet all the requirements to be able to hunt safely on public and private land	1	2	98
Game license holders in NSW are automatically provided with \$20 million liability insurance as part of their licence	1	2	98
All fees from Game Licenses in NSW are used to fund activities to address illegal hunting, fund research into hunting, and game and feral animals and to fund the activities of the Game and Pest Management Advisory Board	1	2	98

Ask if S6=3 (do not hold a NSW hunting license)

F3a	<p>Even though you are currently exempt, to what extent would you support the requirement to apply for a game hunting licence in NSW if a new provision required you to do so:</p> <ol style="list-style-type: none"> 1. Definitely would support the <i>requirement for a game hunting licence in NSW</i> 2. Probably would support the <i>requirement for a game hunting licence in NSW</i> 3. Unsure if I would support the <i>requirement for a game hunting licence in NSW</i> 4. Probably would not support the <i>requirement for a game hunting licence in NSW</i> 5. Definitely would not support the <i>requirement for a game hunting licence in NSW</i> <p>98. Do not wish to answer</p> <p>99. Don't know / Can't Say</p>
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Ask if F3a=1 to 5 (answered likelihood F3a)

F3b	<p>What are the reasons you mentioned, "<INSERT ANSWER FROM F3a>"?</p> <p><i>Please provide as much detail as possible/necessary.</i></p> <hr/>	<p>Compulsory</p> <p>Open-ended</p>
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INTRO8	Now just a few questions about you, to help us better understand who is involved in hunting in NSW.
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Ask all

D1	<p>Do you identify yourself as Aboriginal or Torres Strait Islander?</p> <ol style="list-style-type: none"> 1. Yes 2. No 	<p>Compulsory</p> <p>Single Response</p>
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Ask all

D2	<p>Do you speak a language other than English at home?</p> <ol style="list-style-type: none"> 1. Yes, I speak another language other than English at home 2. No, I only speak English at home 	<p>Compulsory</p> <p>Single Response</p>
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Ask all

D3	<p>Which of the following is <u>the highest level</u> of formal education that you have completed?</p> <ol style="list-style-type: none"> 1. Primary school 2. Third year of high school (completed year 9 or equivalent) 3. Fourth year of high school (completed year 10 or equivalent) 4. High school certificate (completed year 12 or equivalent) 5. Certificate I or II 6. Certificate III or IV (e.g. trade certificate, apprenticeship) 7. TAFE diploma (post high-school) 8. Graduate diploma or graduate certificate (from a university) 	<p>Compulsory</p> <p>Single response</p> <p>Show grey font for code 11</p>
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	9. University degree (e.g. Bachelors degree) 10. Postgraduate degree (e.g. Masters, PhD) 11. Do not wish to answer	
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Ask all

D4	Which of the following best describes you...? <ol style="list-style-type: none"> 1. In full-time paid work 2. In part-time paid work (e.g. you work an agreed number of hours per week) 3. In casual paid work (e.g. your hours vary and are not set) 4. Unemployed and looking for paid work 5. Home duties 6. Retired 7. Student not in paid work 8. Other 9. Do not wish to answer 	Compulsory Single response Show grey font for code 9
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Ask all

D5	Which of the following best describes your living situation...? <ol style="list-style-type: none"> 1. Living as a couple, no children aged under 15 years at home 2. Living as a couple, with 1 or more children aged under 15 years at home 3. Single parent, no children aged under 15 years at home 4. Single parent, with 1 or more children aged under 15 years at home 5. Living with other non-family members (e.g. flatmates) 6. Living alone 7. Other 8. Do not wish to answer 	Compulsory Single response
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Ask all

D6	What is your gross or pre-tax household income? <i>Please include the income earned by all working people in your household. Include income received from government pensions investments/dividends, and salaried employment.</i> <ol style="list-style-type: none"> 1. Negative or nil income 2. \$1 - \$10,399 3. \$10,400 - \$20,799 4. \$20,800-\$31,199 5. \$31,200-\$41,599 6. \$41,600-\$51,999 7. \$52,000-\$64,999 8. \$65,000-\$77,999 9. \$78,000-\$102,999 10. \$103,000-\$129,999 11. \$130,000-\$155,999 12. \$156,000-\$207,999 	Compulsory Single response Show grey font for codes 14 and 15
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	13. \$208,000 or more 14. Don't know 15. Do not wish to answer	
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OUTRO	<p style="text-align: center;">That's the end of the survey. Thank you very much for your time and assistance today.</p> <p>You will have the opportunity to enter into a game of skill for a chance to win one of three prizes. To enter the game of skill, entrants must be 18 years of age or older, provide their contact details, complete the online survey with valid responses and answer the competition question "Please tell us in 100 words or less your favourite hunting experience in New South Wales. What did you like best about the hunting trip and where did it take place?" during the Promotional Period.</p> <p>The answer deemed the best answer overall will win one (1) Garmin Rino 650 GPS and handheld radio (valued at \$750), the second best answer overall will win one (1) Moroka.30 blaze orange Alpine Stalker Rucksack (valued at \$500) and the third best answer overall will win one (1) Blackfoot blaze orange Plainsmans jacket and brimmed hat (valued at \$300).</p> <p>To thank you for your time, we will send you a blaze orange or camo cap or beanie if you choose to provide your details, and this will apply to the first 2,000 respondents with valid survey responses only.</p> <p style="text-align: center;"><i>If you have any queries about this survey, you can contact our office on 1800 063 989 and quote job number B7008. If you have any queries about DBM Consultants or market research in general you can contact the Australian Market and Social Research Society's free survey line on 1300 364 830.</i></p> <p style="text-align: center;"><i>Thank you again for your time.</i></p> <p>DP Instructions: Have two buttons;</p> <ul style="list-style-type: none"> • 'Finish survey' [END SURVEY] • 'Enter details' [go to DETAILS]
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DETAILS	<p>To enter into the competition, please answer the following question and fill in your details below:</p> <p>Please tell us in a maximum of 100 words or less about your favourite hunting experience in New South Wales. What did you like best about the hunting trip and where did it take place?</p> <p>[Insert text box]</p> <p>To be eligible for the orange or camo cap or beanie, please fill in your details below.</p> <p>Your contact information:</p> <p><i>We respect your privacy and will not share your personal details with any unauthorised third parties.</i></p> <p>First Name [Textbox]</p>	Compulsory Single response
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	<p>Last Name [Textbox]</p> <p>Address Line 1 [Textbox]</p> <p>Address Line 2 [Textbox; non-compulsory]</p> <p>Suburb [Drop-down list; Australia-wide]</p> <p>Postcode [4 digits text box; Australia-wide]</p> <p>Email address [email textbox]</p> <p>Phone number (incl. area code) [phone number textbox]</p> <p>To view the Terms and Conditions of this competition please click here <insert link>.</p> <p>[Insert compulsory checkbox] Yes, I agree to the Terms and Conditions which can be found here <insert link>.</p>	
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EXIT	<p>Your survey responses have been successfully submitted.</p> <p>Thank you very much for your time and assistance today.</p> <p>You may now close this browser.</p>
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This report has been prepared by:

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