RMCG

MAY 2023

Economic contribution of recreational hunting in NSW

Final Report

Department of Primary Industries

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Executive Summary

GROSS ECONOMIC CONTRIBUTION

In 2022, the total gross economic contribution of hunting (game licence holders & non licence holders combined) in NSW was estimated to be:

- $508.9 million in GSP: $196.1 million direct and $312.8 million flow on (Figure 4-1a)
- 4,192 FTE jobs: 2,273 FTE direct and 1,918 FTE flow-on jobs (Figure 4-1b)

- Game hunting licence holders

Their gross economic contribution to hunting was estimated to be 26% of the total:

- $131.5 million in GSP ($50 million direct and $81.5 million flow on)
- 1,087 FTE jobs (585 FTE direct and 501 FTE flow-on jobs)

- Non licence holders

Their gross economic contribution to hunting was estimated to be 74% of the total:

- $377.4 million in GSP ($146.1 million direct and $231.3 million flow on)
- 3,105 FTE jobs (1,688 FTE direct and 1,417 FTE flow-on jobs).

This report presents the results of research into the economic contribution of recreational hunting in New South Wales. The scope of the study is limited to the expenditure associated with recreational hunting that occurred in NSW during the 12 months prior to the survey (conducted 26th September - 24th October 2022) and the flow on economic effects of this expenditure.

The study is an update on research completed in 2017 and there were several changes in the economic modelling assumptions for this recent survey. This has meant that the overall economic contribution is now reported as a single figure rather than a range and the annual contribution is lower than previously reported.

The key changes in modelling assumptions were:

- Estimates of the percentages of active game licence holders and non-licence holders i.e. those who had participated in hunting, were reduced. This was based on improved information informing these estimates between the surveys.
- Average expenditure per hunter had increased by 26 per cent (in nominal terms)
- Average trips taken per hunter had decreased by 33 per cent. Hunting trips were likely to have been impacted by COVID-19 travel restrictions and carried over damage from 2019/20 bushfires and 2021/22 flooding.

Due to uncertainty around population estimates for hunters that use non-firearm hunting methods, a sensitivity analysis was performed to determine the impact on the economic contribution of recreational hunting assuming this population is larger than modelled.

The analysis indicated that the results are highly sensitive to changes in hunter population estimates. An increase from approximately 8,000 to 48,000 non-game licence, non-firearms hunters (i.e. by 40,000 individuals) is estimated to triple the economic contribution of recreational hunting to NSW. These non-game licence, non-firearms hunters tended to spend more and were also relatively underrepresented in the survey, and thus had a comparatively large influence on the results.

This highlights the importance of collecting robust statistics on the non-game licenced hunting population that will inform the modelling assumptions for any follow-up survey and economic contribution study.

Of significance was that hunters had generally taken less trips than usual and hunted closer to home during the surveyed period. Hunter responses were unequivocal in that they intended to return to a higher hunting activity in future. This indicates that it is probable that there will be an increase in economic contribution in a future non-COVID and bushfire and flood recovered environment.

Economic Contribution of Recreational Hunting 2021/22

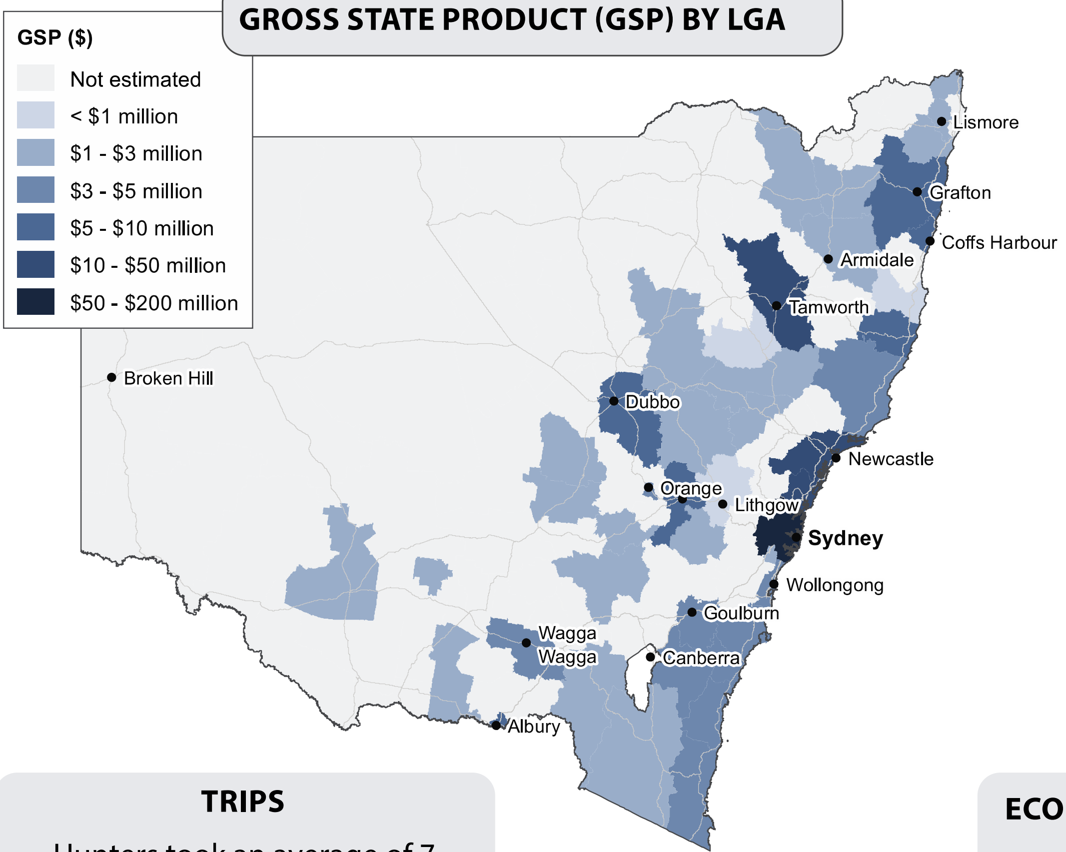
Game Licence holders and non-licence holders contribute to regional and metropolitan economies across New South Wales

- Hunters are usually male, can be any adult age group and live in all parts of NSW.
- Hunters nearly always hold a firearm licence and 20% use bows and close to 10% use dogs to hunt pigs.
- They hunt on both private and public land, but mostly private land
- Target species include pigs, deer and other pest animals, native ducks and game birds

4,192
jobs

$509 Million
gross economic contribution

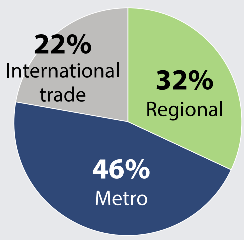
GROSS STATE PRODUCT (GSP) BY LGA



EXPENDITURE

Hunters spend in the order of **$1,000** per trip in 'on-trip' spending and an additional **$2,200** per year on hunting equipment and other off-trip expenses.

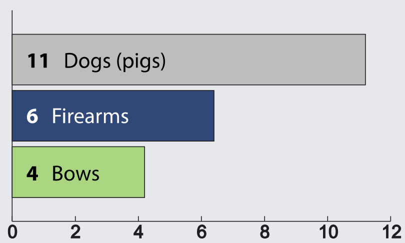
GSP Regional Share



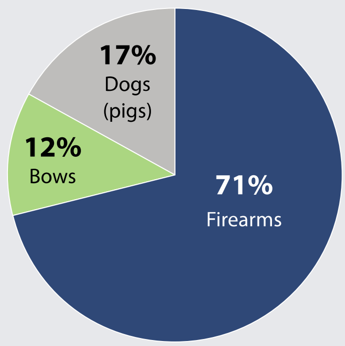
TRIPS

Hunters took an average of 7 hunting trips during the 2021/22 year. Pig hunters (with dogs) took more trips on average.

Average no. of trips by method

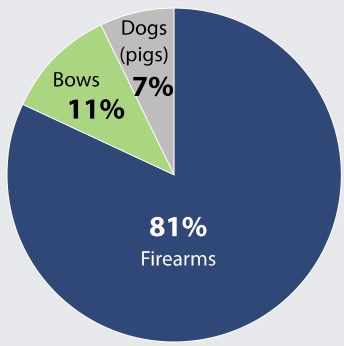


Hunting trips by method



ECONOMIC CONTRIBUTION

GSP and Employment FTE by method



ACKNOWLEDGEMENTS

We acknowledge the Traditional Owners of the Country that we work on throughout Australia and recognise their continuing connection to land, waters and culture. We pay our respects to their Elders past, present and emerging and the Elders of other Aboriginal and Torres Strait Islander communities. Moreover, we express gratitude for the knowledge and insight that Traditional Owner and other Aboriginal and Torres Strait Islander people contribute to our shared work.

RMCG, BDO EconSearch and Action Market Research are grateful for the assistance provided by:

- NSW Department of Primary Industries
- Game Hunting Licence holders
- Approved Hunting Organisations
- The Game and Pest Management Advisory Board
- NSW Hunting Stakeholder Consultation Group, and
- All survey participants.

Part A: Introduction and method

1 Introduction

1.1 THIS REPORT

This report presents the results of research into the economic contribution of recreational hunting in New South Wales (NSW). The study was commissioned by NSW Department of Primary Industries (DPI) and was undertaken by RMCG in collaboration with BDO EconSearch and Action Market Research. The study is an update on research completed in 2017. There were several changes in the economic modelling assumptions for this recent survey and these are explained in section 2.3.

It is estimated that there are approximately 197,000 recreational hunters in NSW. This includes both NSW Game Hunting License (GHL) holders and non GHL holders who hunt game and pest animals with firearms, bows and dogs recreationally. The study does not include the contribution of farmers who shoot pest animals on their properties or those that hunt for other commercial reasons. This study is focused on **recreational** hunting only. Recreational hunters contribute to the NSW economy through their expenditure at a range of businesses across the State. The economic contribution includes hunters' direct expenditure (on and off-trip) such as fuel, accommodation, food and drinks, and hunting equipment, as well as the flow on impact of these purchases in the broader economy.

1.2 SCOPE

The scope of the study is limited to the expenditure associated with recreational hunting that occurred in NSW during the 12 months prior to the survey (conducted 26th September - 24th October 2022) and the flow on economic effects of this expenditure. This is in accordance with the scope of the 2017 study. Further detail on the scope of the project is shown in Table 1-1.

Table 1-1: Project scope

CRITERIA	SCOPE	OUT OF SCOPE
Hunting purpose	Recreational hunting. Limited to hunters holding a NSW Game Hunting Licence (GHL) (excluding Commercial), hunters participating in the Native Game Bird Management Program, non GHL recreational firearm licence holders[1], pig dog hunters and bow hunters.	Professional animal control activities. Animal control activities for primary production purposes with firearm licence for a primary production reason. Commercial harvesters.
Timeframe	Timeframe: The period to be quantified is 12 months leading into the survey launch (26th September 2022)	Expenditure outside this timeframe
Residence	Hunting activity in NSW including by interstate and international hunters who hunted in NSW. The analysis captures the place of residence by local government area (LGA) of hunters.	Hunting activity by NSW residents in other states or overseas
Land tenure	Recreational hunting activities on both private and public land.	
Types of expenditure	All hunting-related expenditure, including both 'on trip' and 'off-trip' expenditure, for instance on equipment and vehicles.	Where items are used for both hunting and general use, for instance with vehicles, that portion of expenditure that does not relate to hunting is excluded

[1] With recreational hunting and sport/target shooting genuine reasons endorsed on their firearm licences.

CRITERIA	SCOPE	OUT OF SCOPE
Geographic distribution	Separated by location of hunting activities, on trip and off-trip expenditure, as well as by location where expenditure occurs by LGA (within NSW).	
Economic distribution	The economic contribution to the hunting value chain including the direct and indirect economic activity resulting from expenditures in NSW.	Reporting of economic contribution by industry or sub-industry group
Species group	Participation and effort by species group	Species not covered by the Game and Feral Animal Control Act 2002 and Game and Feral Animal Control Regulation 2022[2]
Hunting method	Participation and effort by hunting method (i.e. firearm, bow, pig dog hunting)	
Report	Report in detail on the methodologies, survey design, sampling methods, assumptions, data, and output summaries that were used to estimate the level of economic contribution. In terms of economic contribution, report the following: ▪ Economic contribution (direct and indirect) to Gross State Product (GSP) and full time employment (FTE jobs) by hunting method and land tenure; reported separately for game licence holders and non-game licence holders ▪ As above by LGA (up to 40 regional LGAs plus 3 metro regions) NSW expenditure on-trips and off-trip types, by individual expenditure items (e.g. equipment, accommodation, food, fuel, etc) and method/land tenure; reported separately for game licence holders and non-game licence holders.	

[2] Set out the conditions that apply to legal hunting in NSW.

1.3 LICENSING, METHODS, AND SPECIES

This section explains the licensing requirements, recreational hunting methods and species that have been declared to be game or pest animals and can be hunted in NSW.

In NSW, hunting is permitted on private or public land, provided an appropriate licence (where applicable) is held and permission to hunt has been issued by the landholder or manager. Hunters do not need a game hunting licence to hunt rabbits, foxes, pigs, goats, deer, hares, feral cats or wild dogs on private land. Hunters must hold a game hunting licence (general or restricted) to hunt game birds (non-native or native birds). To hunt on public land, hunters must hold a restricted game hunting licence.[3]

Broadly there are two different recreational game hunting licences that apply:

- Game hunting licence (general) - allows the holder to hunt game animals on private land only. It does not permit hunting on public lands
- Game hunting licence (restricted) - allows the holder to hunt game animals on private land as well as game animals and pest animals on public land.

A General Class Licence allows the holder to hunt game animals on private land only. There are five categories of General Class Licence types[4].

- Standard (G-Licence)
- Hunting Guide (G-Guide)
- Professional Hunter (G-Professional)
- Commercial Hunter (G-Commercial)
- Visitors (G-Visitors).

A Restricted Class Licence allows the holder to hunt game animals on private land, as well as game and pest animals on public land. There are four categories of Restricted Class Licence types:

- Standard (R-Licence)
- Hunting guide (R-Guide)
- Commercial Hunter (R-Commercial)
- Visitors (R-Visitors).

These licences are required regardless of the hunting method: firearm, bow or pig dog hunting. In addition to these licences, a firearms licence is required for hunters using firearms. A summary of the licences applicable to recreational hunting in NSW is shown in Table 1-2.

Table 1-2: Recreational game hunting licence types

LICENCE TYPE	GAME ANIMALS	
	Public land	Private land
Restricted	✓	✓ Native Game Birds endorsed licences
General	✕	✓

[3] https://www.dpi.nsw.gov.au/hunting/where-can-i-hunt
[4] General class professional hunters and commercial hunters are not included in the scope of this study

The hunting population distribution by licence type and hunting method in NSW is shown in Figure 1-1[5].

The main species groups hunted in NSW include:

- Deer that are hunted year-round, on public and private land
- Native game birds (e.g. ducks) on private land only. Hunting this animal group is only for sustainable agricultural management purposes and only through the Native Game Bird Management Program. Activities occur on agricultural land to support primary producers between planting (September/October) and harvesting (March) of crops each year. There is no recreational duck hunting season in NSW
- Feral pig, rabbit, fox, goat, cat, hare and wild dog are all hunted on private land year round.

There are three main hunting methods used to target these animals:

- Hunting with a firearm
- Hunting with bows
- Hunting with dogs.

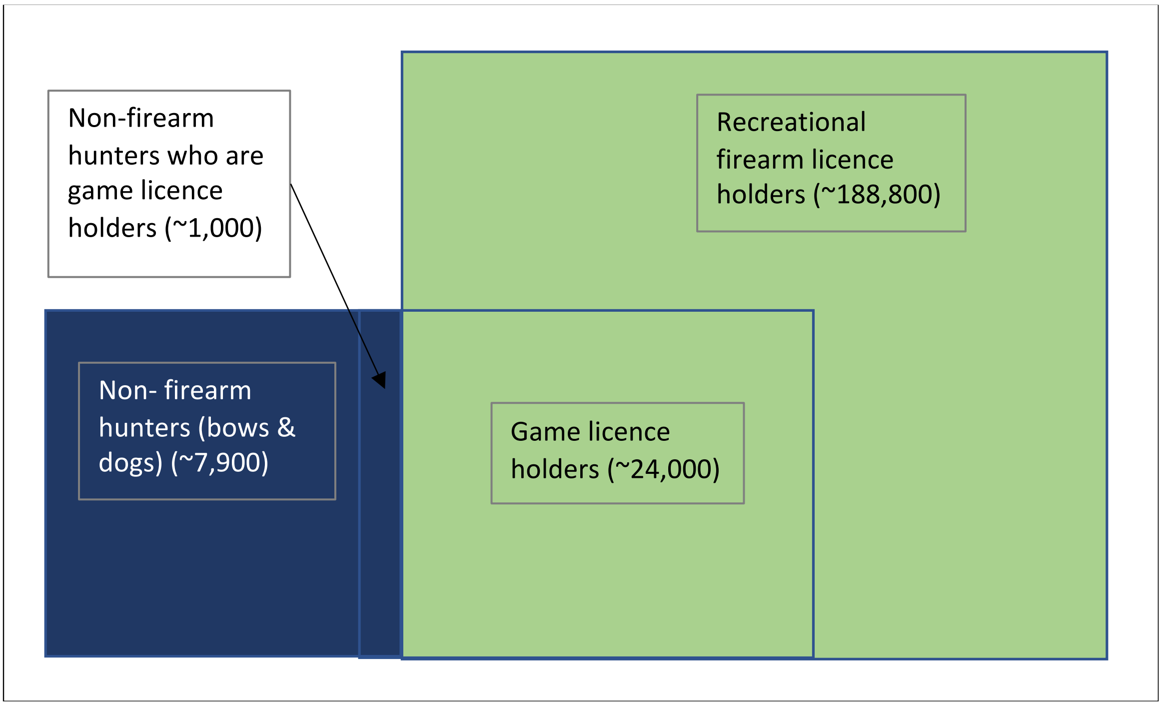


Figure 1-1: Hunting population by licence type and hunting method

[5] Note: The figures in Figure 1-1 are 'rounded' or approximate for illustrative purposes. Table 2-5 (page 15) provides more accurate estimates used in the modelling.

2 Research method

This section explains the economic concepts behind the study and describes the research method used to collect expenditure data.

2.1 ECONOMIC INDICATORS AND CONCEPTS

Gross economic contribution: measures the footprint of recreational hunting in the regional and state economies. An economic contributions analysis will answer the question 'What is the contribution or importance of the industry to national, state and/or regional economies and communities?'. It is generally undertaken within a modelling framework such as a standard input-output model, with the purpose being to determine how much direct and in-direct economic activity is associated with the industry. A contribution analysis may provide evidence of how relatively large a sector is in the existing economy and how much economic activity is being cycled through the economy by that industry (Watson et al. 2014).

The estimates of economic contribution presented are generated by an extension of the conventional input-output method known as the RISE model (Regional Industry Structure and Employment) developed by BDO EconSearch (BDO EconSearch 2020).

The key economic activity indicators modelled in the study are gross state product and employment.

Gross state product (GSP): GSP is a measure of the contribution of an activity to the state (or regional) economy. GSP is measured as the 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 (labour, capital and land). Using GSP as a measure of economic contribution avoids the problem of double counting that may arise from using only value of expenditure for this purpose.

Employment: Employment numbers 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 indicates that the worker is only half-time.

A useful way to think about the broader economic contribution is using the concept of an employment 'supply chain'. There are four categories of activity along the supply chain:

1. *Direct* employment – this is employment in those businesses and organisations that are directly supplying the goods and services purchased by the recreational hunters on the trips and off, i.e., purchases in support of their hunting activities
2. *Flow-on or indirect* employment – is made up of:
   - *First round* employment – refers to employment that supply inputs and services to the 'direct employment' businesses, i.e. those identified at point 1
   - *Industrial-support* employment – this term is applied to 'second and subsequent round' effects as successive waves of output increases occur in the economy to provide industrial support, as a response to the original expenditure
   - *Consumption-induced* employment – is the term applied to those effects induced by increased household income associated with the original expenditure. The expenditure of household income associated with all three categories of employment (direct, first round and industrial support) will generate economic activity that will, in itself, generate jobs.

In this analysis, direct and flow-on employment (FTE) and GSP generated by the supply chain have been reported. GSP can be interpreted along the same lines as the employment example given above.

2.2 SURVEY METHOD AND RESPONSE

To model the economic impact of hunting, it was necessary to first determine hunting-related expenditure. A survey of hunters was conducted to gain a detailed profile of hunters' activity and expenditure in NSW over a 12 month period. The survey questionnaire asked respondents about their hunting activity and expenditure over the previous 12 months i.e. September 2021 – September 2022.

SURVEY DESIGN

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. The survey focused on estimating two variables in particular: the total hunting expenditure by recreational hunters, and the geographic distribution of this expenditure within NSW.

Questions were also designed to collect information on land tenure (hunting activity on private or public land), target species, recreational hunting methods, motivations for hunting, impact of COVID-19 on expenditure, trips taken and their proximity to home, and hunting intentions in the next 12 months.

The survey questionnaire (or instrument) was developed in consultation with DPI Hunting personnel and is shown in Appendix 1. Expenditure items listed in the survey for on and off-trip spending are shown in Table 2-1.

Table 2-1: **Survey expenditure items**

	OFF-TRIP EXPENDITURE	ON-TRIP EXPENDITURE
Hunting specific expenditure	▪ Firearms, bows and other hunting 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	▪ Ammunition ▪ Fees to landowners ▪ Hunting equipment (e.g. decoys, clothing)
General expenditure	▪ Vehicles/motorbikes (e.g. purchased with hunting in mind) ▪ Vehicle equipment/accessories ▪ Vehicle/motorbike maintenance ▪ Other equipment to support your hunting activities, e.g., vehicle equipment / accessories, safety equipment, camping equipment, clothing, knives, binoculars, etc	▪ Fuel ▪ Vehicle/motorbike/boat repairs ▪ Accommodation ▪ Takeaways & restaurant meals ▪ Groceries, etc. for self-catering at your accommodation ▪ Other items needed for your hunting trip

Pre-survey research and piloting

Invitations were sent to pilot participants to test the flow and appropriateness of the survey questions.

A summary of the pre-survey launch activities and the outcomes of the pilot study is provided in Table 2-2.

Table 2-2: Pre-fieldwork and pilot summary

ACTIVITY	DESCRIPTION
Questionnaire Checking	The questionnaire was reviewed by AMR and a number of minor logic suggestions were added for improvement on 9 August 2022.
Programming and Hosting	Programming was completed on 16 August after internal tests and the test link was sent to BDO and RMCG for further testing. A few minor comments were received and applied and the final test link for DPI was sent on 30 August.
Pilot Study	Pilot was launched on 5 September 2022 for n=8 contacts. There was a slight delay on dispatching the Pilot, and some recipients did not receive the email in their inbox. ▪ Pilot contacts received a follow up call on 7 September from the Department ▪ A reminder was sent on 8 September. An additional sample were engaged on 14 September, of which n=1 respondent completed the survey and provided no feedback. In total, n=6 contacts completed the survey by 19 September, out of which three sent feedback emails regarding the content and structure of the survey.
Average Questionnaire length	Median: 19 minutes 53 seconds Average: 17 minutes 57 seconds
Pilot feedback	The pilot was successful and 14 suggested areas for improvement were received and three changes were made to the survey wording in collaboration with the project team and DPI.

SURVEY COMPLETION METHOD

All responses were captured using an online survey. Online surveys are an economical way of reaching a large sample and 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 26th September – 24th October 2022.

The project management decisions made during the delivery of the survey field work are summarised in Table **2-3**.

Table 2-3: Management of survey fieldwork summary

ACTION	DESCRIPTION
Database	A secure, anonymised list of licensed hunters was provided to Action Market Research for the purposes of email dispatch. All emails in the list were sent invitations and reminders, with the email containing a unique survey link for each respondent. The email also contained a generic link which the respondent was able to provide to other hunters to increase participation. The generic link was also provided to various hunting organisations by NSW DPI for their members.
Survey delay	Following the passing of Queen Elizabeth II, 8 September, the email invitation to the survey was postponed. The initial invitation was then dispatched on the 26 September.
Privacy strategy	Phone interviews were not conducted to maintain privacy requirements at the time of the survey. Improvements to future studies could include an approved supplementary phone surveying strategy to target certain quota groups where survey responses were lacking from general field work (via the on-line survey).
Survey promotion	Game hunting licence holders were contacted directly via email and invited to participate in the survey; reminders were also sent out via text messages. This promotional method resulted in a large response rate from the hunting community.

ACTION	DESCRIPTION
	Invites were sent between the 26 to 27 of September 2022: ▪ Reminder 1 between the 5 to 6 of October ▪ Reminder 2 on the 12 of October. Contact details for non-game hunting licence holders were not available to the survey team, as such, the survey was promoted through Social media channels, hunting associations and the DPI Hunting e-newsletter.
Survey extension, SMS reminder	In the third week of the survey, a detailed update was prepared with the counts of Licence Type, LGA and SA4 allocations and the types of hunting conducted by the respondents. While the target number of respondents had been exceeded (~2,000) the unlicensed cohort of hunters was underrepresented. The decision was made to extend the duration of the survey at this point and DPI sent out SMS reminders and further social media posts through various hunting communication channels. This strategy was very successful in boosting the number of unlicensed respondents. For the majority of the fieldwork most of the completes were coming from the database of licensed hunters, however in the last 5 days of fieldwork there was a large increase in the number of completes from the referral link, with approximately 1,800 completes coming through (from both licensed and unlicensed hunters) in the final stages of fieldwork.
Average questionnaire length	Median – 12 minutes 30 seconds Mean – 15 minutes 12 seconds
Survey completion	The survey was closed 24 October 2022.

SURVEY RESPONSE

The target 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 surveys.

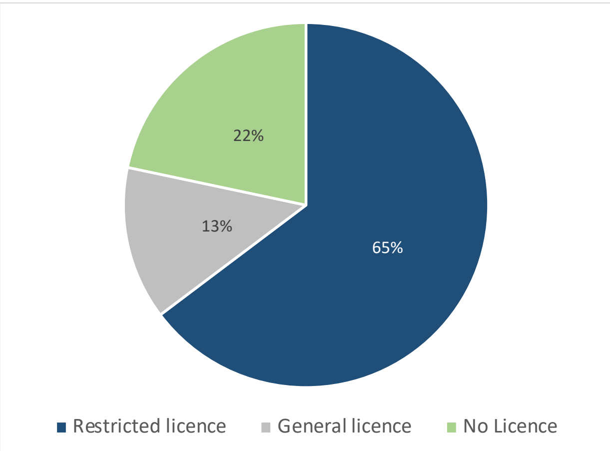


Figure 2-1: Survey respondents by licence type

The final number of respondents who provided usable responses was 5,207.

This included:

- 3,370 Restricted Class Licence holders,
- 708 General Class Licence holders, and
- 1,129 respondents who did not hold a NSW game hunting licence (Figure 2-1).

The majority (85 per cent) of survey respondents resided in NSW, with a substantial number of respondents from Victoria, Queensland, and ACT (Table 2-4).

Table 2-4: Location of game hunting licence holders and other recreational hunters

LOCATION	FREQUENCY	PERCENTAGE
New South Wales	4,414	85%
Queensland	259	5%
Victoria	333	6%
South Australia	17	0.3%
Tasmania	7	0.1%
Western Australia	7	0.1%
Northern Territory	4	0.1%
Australian Capital Territory	165	3%
Outside Australia	1	< 0.1 %
Total	5,207	100% (due to rounding)

The survey data was collected and collated at a spatial scale to show the distribution of survey responses. Figure 2-2 shows the survey achieved a broad spatial distribution and is likely to reflect where the population of hunters reside in NSW.

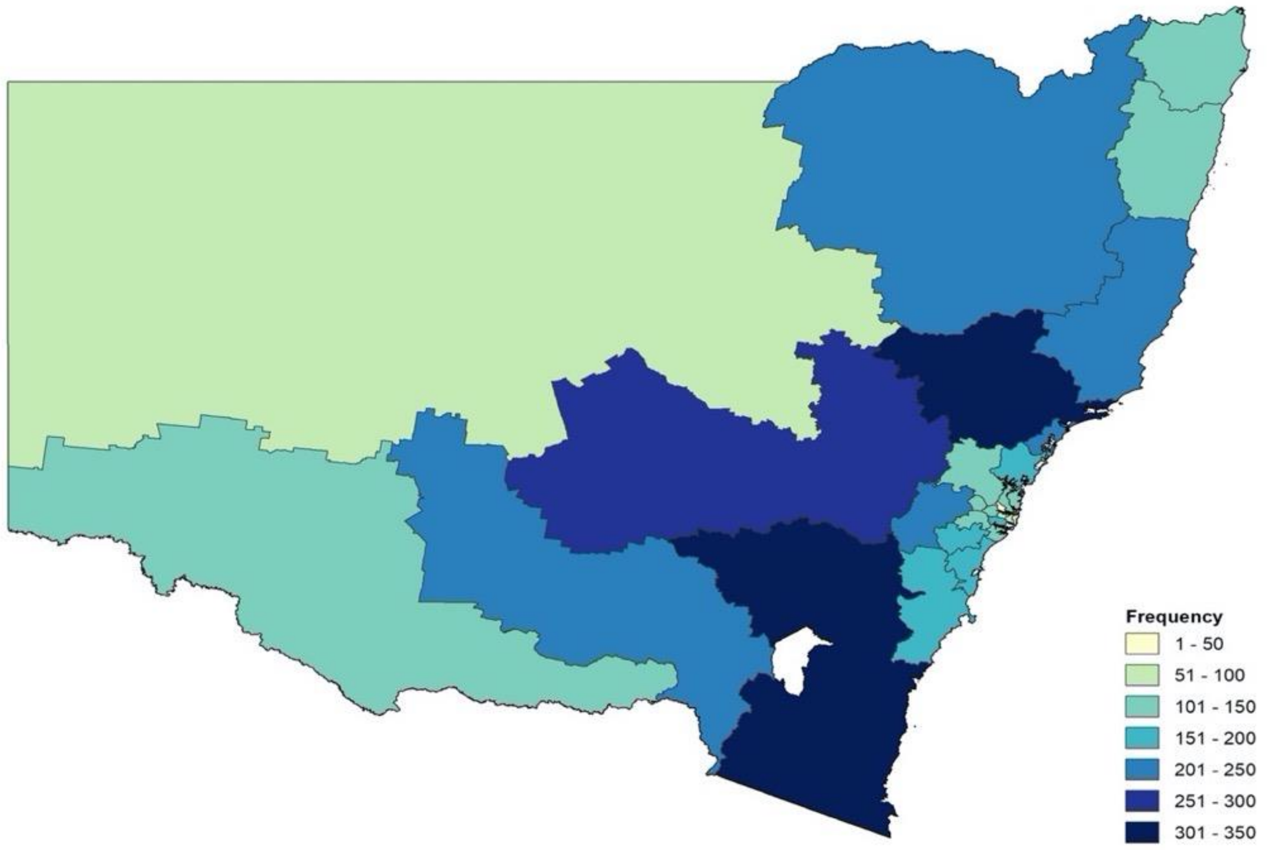


Figure 2-2: Spatial distribution of survey respondents

A good mix of hunting methods were achieved by the sample. 82 per cent of respondents held a NSW firearm licence for recreational hunting and/or vermin control, 28 per cent reported hunting with bows and 13 per cent hunting pigs with dogs (Figure 2-3).

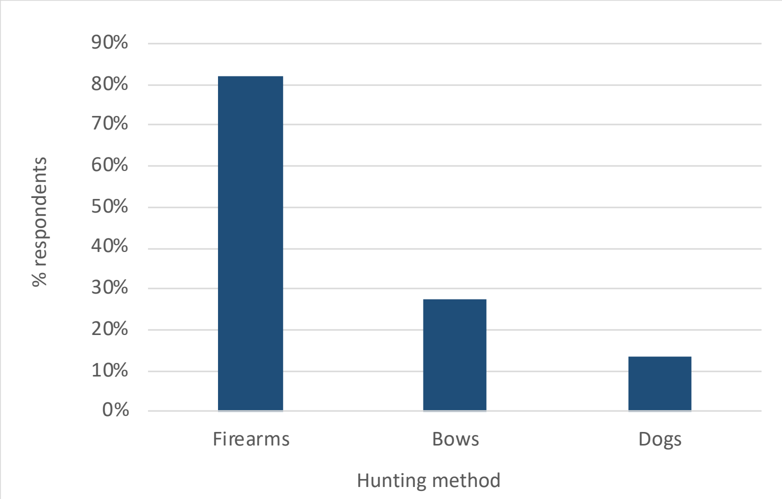


Figure 2-3: Hunting method (% respondents)

Surveyed recreational hunters were predominantly male, comprising 96 per cent of the total survey demographic. A wide age distribution of the hunting population was represented and is shown in Figure 2-4. The most frequent respondent ages were 50-54 and 65-74 years of age, noting that more than three quarters of respondents were game licence holders which may be an older cohort within the wider hunter population.

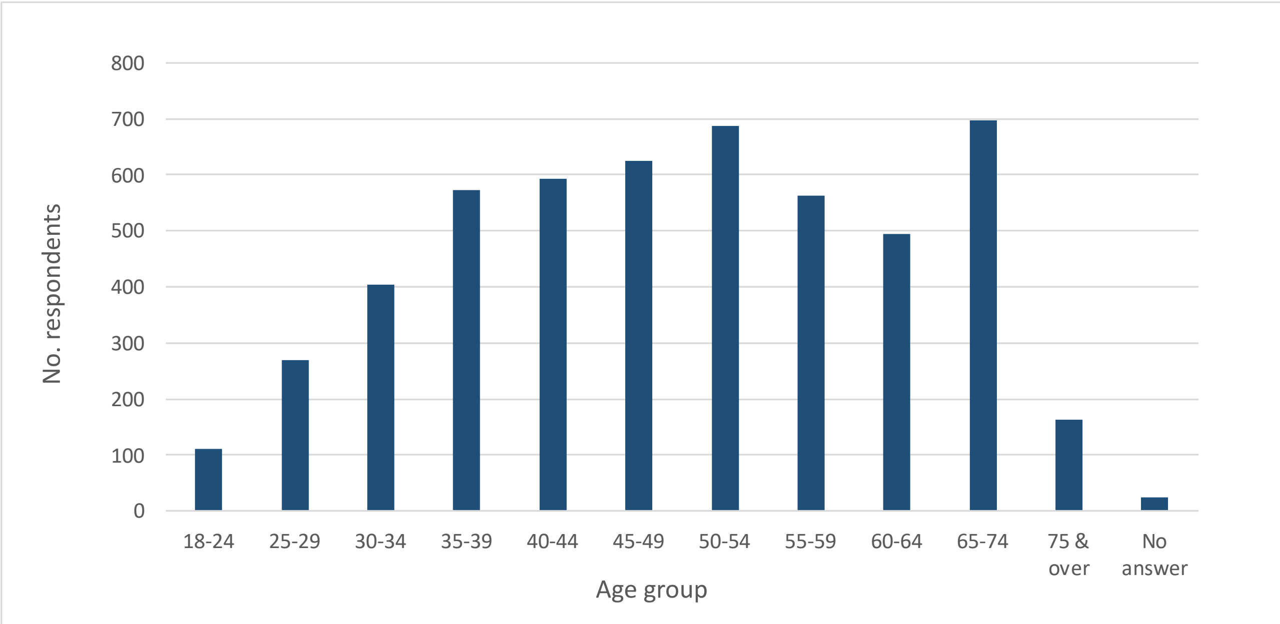


Figure 2-4: Age of surveyed hunters

2.3 ECONOMIC CONTRIBUTION METHOD

EXPENDITURE

OVERVIEW

The first step in calculating economic contribution was to develop expenditure estimates for the recreational hunting population in NSW. The expenditure estimates include both how much hunters spend on recreational hunting trips (including, fuel, ammunition, food, etc.) and off-trip (i.e., on equipment, training, etc.) to support their hunting activities.

Estimation of expenditure required some data checking/adjustment, estimating the on-trip and off-trip expenditures by each sampled hunter and scaling that expenditure from the survey sample to the population.

These aggregated expenditure data were then converted from purchasers' prices to basic prices by reallocating net taxes, retail and transport margins and removing imports.

The closing adjustment to the aggregate expenditure data was allocating them to the relevant input-output sectors (78 intermediate sectors or other value added) in which the expenditure occurred, compiling a final demand profile ready for input into the economic contribution estimation models.

ESTIMATION OF EXPENDITURE

To estimate total annual expenditure by method/land type and by location from the survey, the following data processing steps were undertaken:

1. Data adjustment
2. Estimating on-trip and off-trip expenditure by each sampled hunter
3. Estimating the hunter population
4. Scaling the expenditure from the survey sample to the population.

These steps are explained more fully below:

Step 1 – data adjustment

- Data cleaning
  - 28 responses initially classed as active, said at question C3 (see Appendix 1 (survey questionnaire) that they did nil hunting trips in NSW in the last 12 months. On reviewing the remainder of their answers, they were reassigned as inactive.
  - 35 individuals classed as active did not identify their main hunting methods at questions S3 and S7 (see Appendix 1 survey questionnaire), so it was not possible to assign them to any method and consequently they were not asked any of the questions relating to trips and trip expenditure. They were excluded from the economic contribution aspects of the survey but were included in other analyses where relevant.
  - 131 individuals classed as active and identifying the methods they hunted at questions S3 to S7, then identified those methods as 'never main method' at question C6 (see Appendix 1 survey questionnaire). Consequently, they were not asked any of the questions relating to trip expenditure. They were excluded from the economic contribution aspects of the survey but were included in other analyses where relevant.
- 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 (see Appendix 1 (survey questionnaire)). In most cases mid-point values were used to represent the data range. In the case where a range was specified as a value or higher (e.g. '$1,001 or higher'), a conservative assumption was made by using the lower bound (i.e. $1,001 in the example).

Step 2 – estimation of on-trip and off-trip expenditure by each sampled hunter

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 each respondent's last trip, including: expenditures, location of expenditure and hunting method used and land type. Data were also collected on the total number of recreational hunting trips they took in NSW in the last 12 months and the breakdown of those trips by method and land type. The main locations of those trips were also captured. Expenditure data, from respondents' last trips, were extrapolated to all the trips respondents took in the last 12 months. Expenditures were excluded where they occurred outside NSW.

For off-trip expenditure, survey data were collected about respondents' expenditures and where they occurred. Expenditure on items used for purposes other than recreational hunting was adjusted by the proportion of use on hunting, as indicated by respondents, for each item. Inactive respondents' off-trip expenditure was distributed evenly across the methods and land types they were endorsed to hunt while active respondents off-trip expenditure was apportioned according to the proportion of hunting trips they made for each hunting method and land type. Expenditures were excluded where they occurred outside NSW.

Step 3 – estimation of the recreational hunting population

The first step was to estimate the total hunting population and then the second step was to subdivide that population into hunters with recreational game licences and hunters without recreational game licences. These population estimates are summarised in Table 2-5.

Total recreational hunting population

The total population of hunters with firearms endorsed for recreational hunting was estimated at approximately 189,000 firearm licence holders using licensing information in NSW Firearm Registry Licensing and Ownership Information (NSW Police Force 2022)[6]. The hunting population that hunts pigs with dogs was estimated at between 40,000 and 65,000 persons (NSW DPI Hunting, pers. comm.) and the NSW bow hunting population was estimated at approximately 3,100 persons (NSW DPI Hunting, pers. comm.). There is overlap in use of these methods. We analysed anonymised restricted licence hunting method endorsements data and found that approximately 96 per cent of licence holders were endorsed for at least firearms and the remaining 4 per cent for non-firearm methods only. Using these statistics as a proxy for the broader recreational hunting population, we estimated the total hunting population to be approximately 197,000 persons (comprising approximately 189,000 persons[7] who use at least firearms and 8,000 persons[8] who use non-firearm methods only).

Recreational hunting sub-populations

The total recreational hunting population was subdivided into hunters with recreational game licences and hunters without recreational game licences. An estimate of the number of restricted and general game licence holders was identified from an anonymised extract of the NSW game licence database provided by NSW DPI Hunting (22,269 restricted and 1,748 general game licence holders). The game licence subpopulation estimates (approximately 24,000 in total) were subtracted from the total recreational hunting population to derive a non-game licence hunting population of approximately 173,000 persons.

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6 We used % recreational firearm genuine reason to estimate the number of individual firearm licence holders with a recreational genuine reason (estimated at approx. 199,000 licence holders). We then estimated the number of those licence holders with recreational hunting genuine reason (estimated at 188,800 licence holders) based on the method applied to estimate the number of NSW firearm licence holders with a recreational hunting genuine reason in the national recreational hunting and sport shooting study (RMCG et al. 2019.)

7 Including game licence holders and non game licence holders

8 Including both game licence holders and non game licence holders

Table 2-5: Recreational hunting population estimates used in the analysis

POPULATION/SUBPOPULATION	PERSONS
Restricted game licence holders (all methods)	22,269
General game licence holders (all methods)	1,748
Total game licence holders	24,017
Non-game licensed hunters – firearm users	165,710
Non-game licensed hunters - non-firearm users	6,906
Total non-game licensed hunters	172,616
Total recreational hunting population	196,633

Step 4 – scaling the expenditure from the survey sample to the population

Game hunting licensed population

Information regarding the characteristics of the recreational game hunting licence holders was drawn from an anonymised extract of the NSW game licence database provided by DPI Hunting for this project. The data was analysed to estimate the number of game licence holders in each licence category for each age group as enumerated in the survey (see A2 of the survey questionnaire, Appendix 1). The game-hunting licenced 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 proportions of active and inactive hunters, amongst game licence holders, were estimated based on statistics provided by DPI Hunting on the number of game licence holders booking hunting trips on public land in the most recently available 12-month period. Table 2-6 provides a comparison of the survey sample to the NSW game licence holder population.

Table 2-6: Game licence holders – survey sample vs population

CHARACTERISTIC	SURVEY SAMPLE (N = 3,953)	POPULATION (N = 24,017)
Proportion active	81%	29%
Proportion under 55 years old	66%	75%
Proportion male	98%	97%
Proportion with restricted game hunting licence	83%	93%

Of the 3,953 responses included in the analysis, 81 per cent had gone on at least one recreational hunting trip in the last twelve months (active). As described earlier (see Table 2-6, where 81 per cent of sample were active compared with a population active rate of 29 per cent), the survey sample was not random, therefore self-selection bias was expected to skew the results to over represent hunters who take more trips. The survey sample of active and inactive hunters was sufficient to weight individual responses for each method and land type to match the population level of activity, gender and age distributions for that group. Assuming these characteristics are correlated with recreational hunting behaviour, this provides a better estimate of population level activity than simply weighting each response by the ratio of population size to sample size. The generalised regression method, described by Bethlehem and Keller (1987), was used to weight responses. Weighting was carried out using the GREGWT package in R, 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, b). The resulting average weight applied to the sample of game licence hunting population was 6.1.

Non-game hunting licensed hunting population

Scaling survey data for the non-game hunting licence hunting population is more challenging as population estimates are approximate and population activity estimates less well aligned. Further, the sample size of non-game hunting licence hunters was smaller (n = 1,088) and the estimated population size much larger (approximately 173,000), meaning that the survey data were heavily leveraged with an average weighting of around 158.7. Table 2-7 provides a comparison of the survey sample to the non-game licence hunter population in NSW.

Table 2-7: Non-game licence holders – survey sample vs population

CHARACTERISTIC	SURVEY SAMPLE (N = 1,088)	POPULATION (N = 172,612)
Proportion active	77%	6%[a]
Proportion that hunted with firearms	96%	96%

Note: [a] weighted average value for firearm hunters (5.8 per cent) and non-firearm hunters (10.5 per cent)

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 and inactive responses, then attributing individuals as hunting with firearms or without firearms.

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.

Data from AusPlay (Australian Sports Commission 2022) were used to impute the level of hunting activity in NSW for firearms hunters (5.8 percent[9]) and non-firearms hunters (10.5 per cent[10]). For further details of how these levels of hunting activity were derived, refer to Appendix 6.

GEOGRAPHY USED FOR THE ANALYSIS

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 2-8.

Table 2-8: Sydney, Newcastle and Wollongong regions defined by LGA

LOCAL GOVERNMENT AREAS (LGAS)	
Sydney	
Blacktown	Mosman
Bayside (NSW)	North Sydney
Burwood	Northern Beaches
Camden	Parramatta
Canada Bay	Penrith

[9] 10,871 adult individuals in NSW who undertook shooting sports activities (Australian Sports Commission 2022). This equates to 5.8% of the firearms licenced population (estimated at 188,800 individuals). Shooting sports includes bird shooting, duck shooting, hunting (with a gun) and shooting sports (other).

[10] 12,218 adult individuals in NSW who participated in archery activities (Australian Sports Commission 2022). No category available for hunting pigs with dogs. Archery sports include bow hunting, crossbow shooting and archery (other). This equates to 10.5% of the hunter population who use bows as one of their methods of hunting (estimated at 116,500 individuals).

LOCAL GOVERNMENT AREAS (LGAS)	
Canterbury-Bankstown	Randwick
Cumberland	Ryde
Fairfield	Strathfield
Georges River	Sutherland
Hornsby	Sydney
Hunters Hill	The Hills
Inner West	Waverley
Ku-ring-gai	Willoughby
Lane Cove	Woollahra
Liverpool	
Newcastle	**Wollongong**
Cessnock	Kiama
Lake Macquarie	Shellharbour
Maitland	Wollongong
Newcastle	
Port Stephens	

Economic contribution was estimated for the metropolitan regions, as well as the 40 non-metropolitan LGAs (out of the total 95) that had the highest hunting expenditure from the survey. The selected regions are detailed in Table 2-9.

Overall, these regions accounted for 87 per cent of the total expenditure by NSW recreational hunters in this survey. They accounted for 78 per cent of trip expenditure and 94 per cent of non-trip expenditure.

Table 2-9: High expenditure LGAs and regions selected for the economic contribution analysis

SELECTED LOCAL GOVERNMENT AREAS (LGAS)		
Albury City	Griffith	Port Macquarie-Hastings
Armidale Regional	Hay	Queanbeyan-Palerang Regional
Bathurst Regional	Hilltops	Richmond Valley
Bega Valley	Inverell	Shoalhaven
Campbelltown	Kempsey	Snowy Monaro Regional
Central Coast	Lismore	Snowy Valleys
Clarence Valley	Lithgow City	Sydney[a]
Coffs Harbour	Liverpool Plains	Tamworth Regional
Cowra	Mid-Coast	Tweed
Dubbo Regional	Mid-Western Regional	Upper Hunter
Eurobodalla	Muswellbrook	Wagga Wagga
Federation	Newcastle[a]	Warrumbungle
Forbes	Oberon	Wollongong[a]
Glen Innes Severn	Orange	
Goulburn Mulwaree	Parkes	

Note: [a] metropolitan region

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 retail and transport margins were reallocated to make the data consistent with accounting conventions used in the Regional Industry Structure and Employment (RISE) model (see below). Purchasers to basic price ratios were derived from 2021 ABS data (ABS 2021). 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 contribution estimation process.

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

ECONOMIC CONTRIBUTION

OVERVIEW

The economic contribution results quantify the footprint of recreational hunting in the regional and state economies. The estimates of economic contribution presented in this report are generated by an extension of the conventional input-output method known as the RISE model (Regional Industry Structure and Employment) developed by BDO EconSearch. These extensions have included the addition of population and unemployment "sectors", as well as capacity to analyse productivity and price change effects.

The magnitude of various expenditures and where they occur is fed into the RISE model by the final demand profile. 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. The RISE model provides industry multipliers (in terms of employment and gross regional product (GRP), which are applied directly to expenditure estimates to formulate economic contribution estimates.

THE RISE ECONOMIC MODEL

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

To estimate regional economic contribution, the RISE model requires information on the magnitude of various expenditures and where they occur, in this case, gathered from the survey.

Survey data were used to determine the direct expenditures only. For expenditure in subsequent rounds (expenditure by businesses and households that received money from hunters) a set of assumptions based on average inter-sector 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. This approach makes simplifying assumptions about the operation of the economy but has the benefit of being relatively simple and transparent.

MODEL ASSUMPTIONS COMPARISON

A comparison of key modelling assumptions and data between the 2017 and 2022 hunter surveys is shown in Table 2-10.

Table 2-10: Key model assumptions and data

1	Population - # game licence holders	19,124	24,017
2	Population - # non -game licensed hunters	206,876	172,616
3	Total population	226,000	196,633
4	% active - game licence holders	62%	29%
5	% active – non-game licensed hunters	10% - 62%	6%
6	No. active game licence holders	11,857	6,965
7	No. active non-game licensed hunters	~20,700 – 128,300	10,360
8	Av. expenditure/hunter - game licence holders	$5,230	$6,510
9	Av. expenditure/hunter – non-game licensed hunters	$2,157	$2,579
10	Av. expenditure/hunter - all	$2,417	$3,059
11	Population - Av. # trips/hunter	11.1	7.4

Of note, was that:

- **While the game licence holder population had increased the estimate of the non-game licence holders had decreased by more, producing a smaller hunter population in NSW overall**. In the 2017 study, it was assumed that hunters that used non firearm methods did not use firearms, and thus the overall recreational hunting population was larger. For the current study, by interrogating the available data on hunting methods (based on the R licence holder hunting method endorsements), we have identified that a small proportion (4 per cent of R-licenced hunters) of hunters used only non-firearm methods and that there is a large overlap in methods used. In the absence of data on the non-game licenced hunting population, these assumptions were applied to the non-game licence holders
- **Estimates of the percentage active game licence holders were reduced based on improved information informing this assumption between the surveys**. The participation rate of NSW game licence holders was not available for the 2017 study and the participation rate of Victorian game licence holders (62 per cent) was used from a Victorian hunting study (RMCG et al 2014). For the current study, a participation rate was provided by DPI Hunting[11]
- **Estimates of the percentage active non-game licensed hunters were also substantially refined and identified as a single percentage rather than an extensive range**. Again due to improved information. The 2017 study used two estimates, to indicate a likely high and low estimate, from 62 per cent (using the participation rate of Victorian game licence holders estimated in RMCG et al 2014) and a nominal 10 per cent. The accuracy of these estimates has now been increased due to improved data. The current study used AusPlay estimates of participation rates of relevant recreational activities/sports (refer to Appendix 6 for more details)
- Average expenditure per hunter had increased by 26 per cent (in nominal terms)
- Average trips taken per hunter had decreased by 33 per cent. Hunting trips were likely to have been impacted by COVID-19 travel restrictions and flooding during 2021. This is discussed further in Section 5.

[11] The proportions of active and inactive hunters, amongst game licence holders, were estimated based on statistics provided by DPI Hunting on the number of game licence holders booking hunting trips on public land in the most recently available 12-month period.

Part B: Results

3 Hunter profile

OVERVIEW

This section describes hunters and hunting activity in NSW, based on the survey sample, covering the following characteristics:

- Hunting method – mix of methods, land tenure, trips per hunter
- Target species group – game licence type, on and off-trip expenditure, trips per hunter, land tenure, by species group and method
- Hunter motivations.

From the large sample achieved it is evident that hunters are usually male (a very large majority), can be any adult age group (but mostly 35 to 75 years) and reside in all parts of NSW.

Based on the survey sample, NSW hunters nearly always hold a firearm licence and around 20 per cent use bows and close to 10per cent use dogs (to hunt pigs). They hunt on both private and public land, but mostly private land, accounting for two thirds of trips each year.

Pig hunters using dogs are the most avid, taking twice as many trips as hunters using other methods. Other species group, pigs, and then deer are hunted the most.

Hunters tend to spend in the order of $1,000 per trip in 'on-trip' expenditure items and an additional $2,200 per year on hunting equipment and other off-trip expenses.

NSW hunters reported that they hunt to spend time outdoors, to reduce pest species and to get food (for themselves, family and friends).

HUNTING METHOD

A large majority of active hunters (having hunted in the past 12 months) hold a firearms licence (94 per cent). Bow hunters comprised 21 per cent of the active hunter sample, 9 per cent were pig hunters (using dogs) and 4 per cent used all three methods. Bow or pig hunters (using dogs) were more likely to live in regional than metro areas (approx. 60%:40%).

Figure 3-1 illustrates the proportion or mix in hunting methods used among active[12] licensed firearm users and bow and pig dog hunters in NSW. Of note is that three quarters of licensed firearm hunters use firearms only whereas bow and pig dog hunters also tend to have a licence to use firearms.

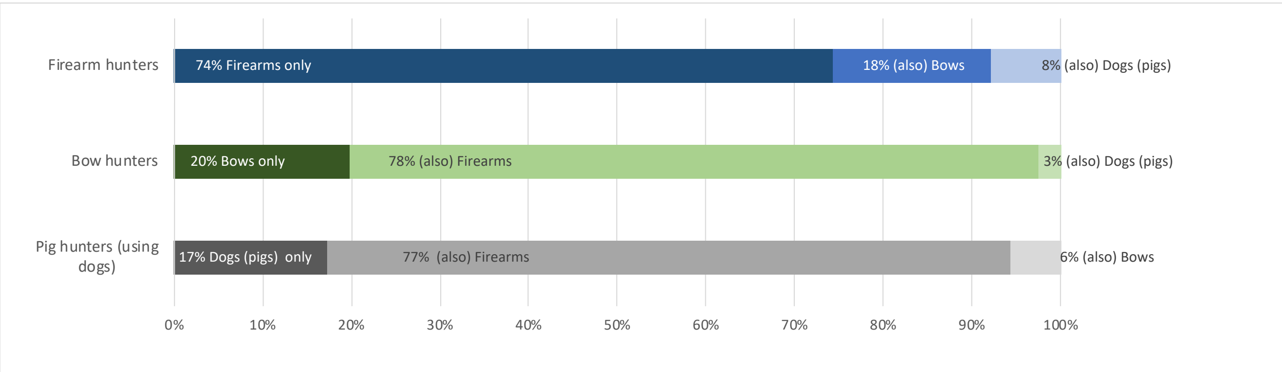


Figure 3-1: Mix of hunting method by active hunter type

[12] The 'Active' cohort refers to hunters (respondents in the survey) who took a trip in the past 12 months

Active firearm, bow and pig hunters (using dogs) hunted on both public and private land during their last trip. Generally one third of trips were on public land and two thirds were on private land (Figure 3-2).

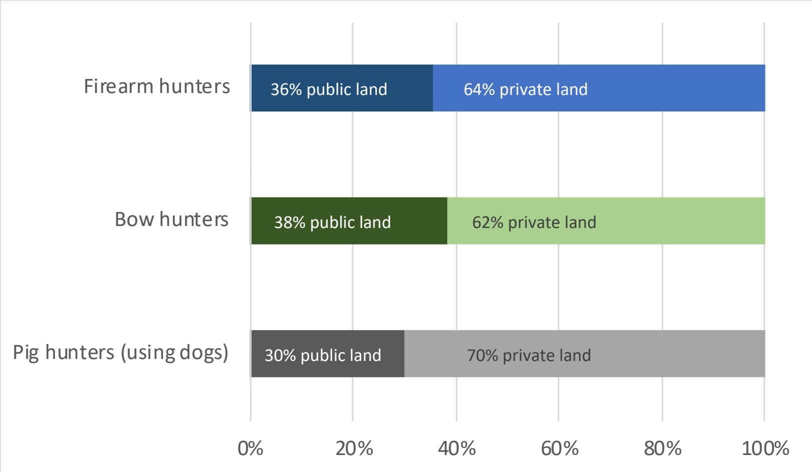


Figure 3-2: Land tenure by active hunter type

Over 45,000 trips were taken by respondents over the past 12 months. Hunters used three different methods to hunt on both private and public land (Figure 3-3). The average number of trips taken by all respondents[13] was 6.5 and pig hunters using dogs took almost twice the number of trips when compared to the average (11.2), indicating that these hunters were the most active (Table 3-1).

Table 3-1: NSW hunting trips (past 12 months) by hunting method

RESPONDENT TYPE	TRIPS	% TOTAL	AVERAGE NO. OF TRIPS
Firearms	32,419	72%	6.4
Bows	5,364	12%	4.2
Dogs	7,525	17%	11.2
Total	**45,308**	**100%**	**6.5**

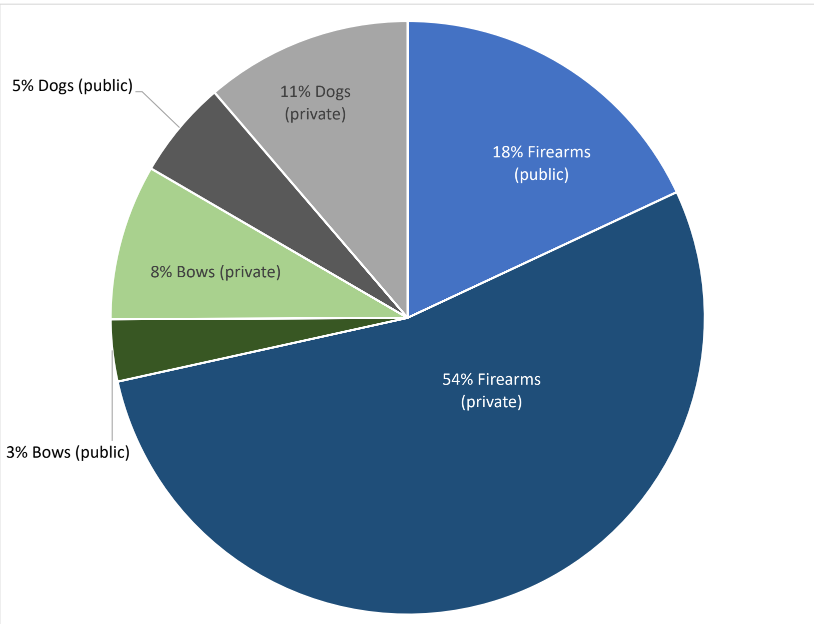


Figure 3-3: NSW hunting trips (over past 12 months) by hunting method and land tenure

[13] All respondents including active hunters and hunters who had not been active over the previous 12 months

TARGET SPECIES GROUP

Target species in NSW include native ducks, deer, pigs, other species group and game birds. Other species group, pigs and then deer were hunted by the most respondents over the past 12 months (Figure 3-4). There was little change in species groups intended to be hunted over the coming 12 months, noting that more hunters reported an intention to hunt ducks and game birds (up to 14 per cent and 9 per cent respectively, from 8 per cent and 4 per cent of respondents).

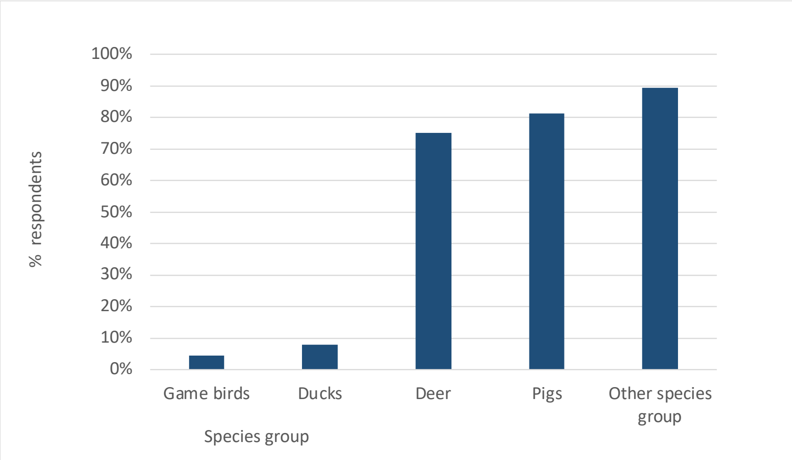


Figure 3-4: Species group hunted over the past 12 months (all respondents)

Correspondingly, other species group, pigs and deer hunting accounted for the purpose of the most trips.

Hunters of specific target species have a unique expenditure profile in terms of dollars spent per trip and dollars spent on non-trip items. A summary of average expenditure (on and off-trip) by species type is shown in Table 3-2.

Table 3-2: Average expenditure per species group

SPECIES GROUP	NO. TRIPS	PROPORTION – ALL TRIPS	TRIP EXP. ($/TRIP)	NON-TRIP EXP. ($/RESPONDENT)
Ducks	883	2%	$1,034	$2,607
Deer	12,753	27%	$888	$2,244
Pigs	16,434	35%	$917	$2,151
Other species group	16,300	35%	$890	$2,180
Game birds	333	1%	$1,608	$1,667
Total	**46,703**	**100%**	**$1,067 (av.)**	**$2,170 (av.)**

The average on-trip expenditure across all species groups was reported to be $1,067 per trip and the average non-trip expenditure per respondent was $2,170.

Game bird and duck hunters spent the most dollars per trip ($1,608 and $1,034 respectively). Duck hunters also reported the highest non-trip expenditure.

The share of all expenditure (on and off-trip) by species group is shown in Figure 3-5. This closely aligns with the number of hunting trips reported by species group, where other species group, pigs and deer hunting contributed the most expenditure.

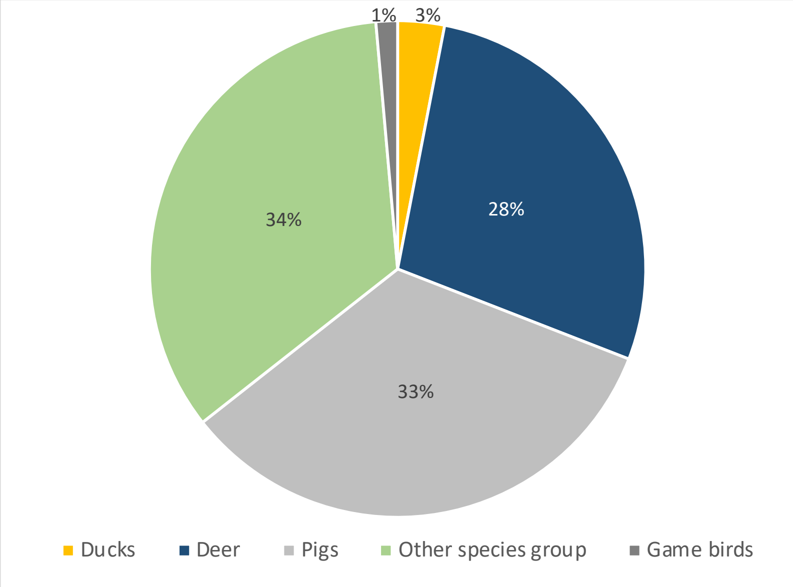


Figure 3-5: Proportion of all expenditure (on and off-trip) by target animal

HUNTER MOTIVATION

Respondents were asked about their personal motivations to hunt. They reported their 'top five reasons' for going hunting. The most frequent reasons were: to spend time outdoors, to reduce pest species populations and to get food (for oneself/family/friends). The reasons are ranked in Table 3-3: Hunter motivation and there were no discernible differences found between metro and non-metro hunters, and those living in NSW and those from inter-state.

Table 3-3: Hunter motivation

RANKING	MAIN REASONS FOR HUNTING	NO. RESPONSES	PERCENTAGE
1	To spend time in the outdoors	3,600	69%
1	To reduce pest species populations	3,597	69%
2	To get food for myself or my friends/family	3,173	61%
3	To relax and unwind	1,723	33%
3	To spend time with friends	1,009	33%
4	To enjoy solitude and quiet time	1,674	32%
5	Because it is challenging	1,490	29%
6	To get away from my day-to-day life	1,472	28%
6	To get exercise	1,466	28%
7	To continue a family or cultural tradition of hunting	1,359	26%
8	To spend time in places that are special to me	1,203	23%
9	For the sense of achievement from a successful hunt	1,149	22%
10	To spend time with family	1,009	19%
11	To enjoy the experience of hunting	736	14%
12	To have the opportunity of taking a trophy	373	7%
13	Other	180	3%
14	To meet new people	123	2%
	Total	**5,207**	**100%**

4 Economic contribution

4.1 OVERVIEW

GROSS ECONOMIC CONTRIBUTION

In 2022, the total gross economic contribution of hunting (game licence holders & non licence holders combined) in NSW was estimated to be:

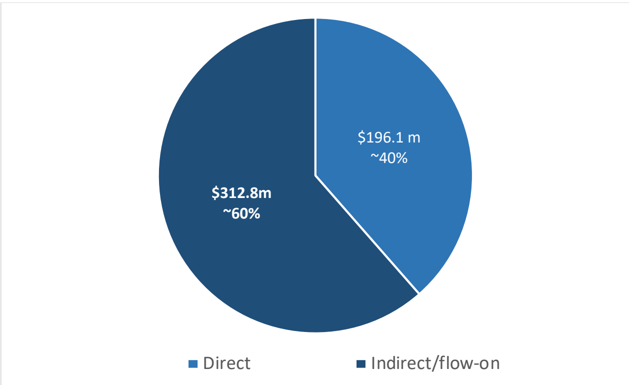
- $508.9 million in GSP: $196.1 million direct and $312.8 million flow on (Figure 4-1a)
- 4,192 FTE jobs: 2,273 FTE direct and 1,918 FTE flow-on jobs (Figure 4-1b)

- Game hunting licence holders
Their gross economic contribution to hunting was estimated to be 26% of the total:

- $131.5 million in GSP ($50 million direct and $81.5 million flow on)
- 1,087 FTE jobs (585 FTE direct and 501 FTE flow-on jobs)

- Non licence holders
Their gross economic contribution to hunting was estimated to be 74% of the total:

- $377.4 million in GSP ($146.1 million direct and $231.3 million flow on)
- 3,105 FTE jobs (1,688 FTE direct and 1,417 FTE flow-on jobs).



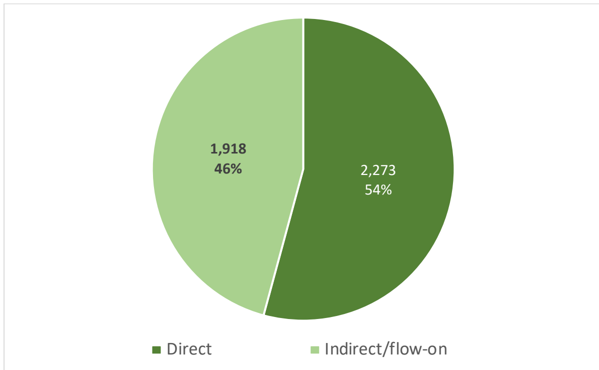


Figure 4-1: a) Gross economic contribution to NSW **b) Employment to NSW**

Using BDO EconSearch's input-output Regional Industry Structure and Employment (RISE) model the gross economic contribution to the state economy was estimated.

Economic indicators reported in the study are Gross state product (GSP) and employment (FTE). Estimates of GSP and FTE include both direct and indirect or flow on impacts.

The expenditure estimates, for both on-trip and off-trip, form the basis for estimating economic contribution by:

- NSW game licence holders and non-licence holders
- Land tenure, by hunting method, state and by region (LGA).

The gross economic contribution represents the current economic 'footprint' generated by hunting expenditures.

Refer to Appendix 2 for a high level summary of the breakdown of direct versus flow-on GSP and employment by land tenure and hunting method, for NSW.

4.2 STATEWIDE (NSW)

EXPENDITURE

Total expenditure[14] on hunting in NSW was estimated to be $601.6 million comprising $156.4m (26 per cent) from game hunting licence holders and $445.2 m (or 74 per cent) from non-licence holders (Table 4-1).

Table 4-1: Expenditure breakdown by game licence status $m (12-months prior to survey)

	ON-TRIP $M	OFF-TRIP $M	TOTAL $M
Game hunting licence holders	$70.8	$85.6	$156.4
Non-game hunting licence holders	$82.9	$362.3	$445.2
Total	$153.7	$447.9	**$601.6**

Fuel was the main on-trip expenditure item, followed by groceries and ammunition. Equipment purchases were the main off-trip expenditure item, followed by purchase of vehicles, ammunition then hunting equipment, as shown in Table 4-2.

Table 4-2: Expenditure by item category (on and off-trip)

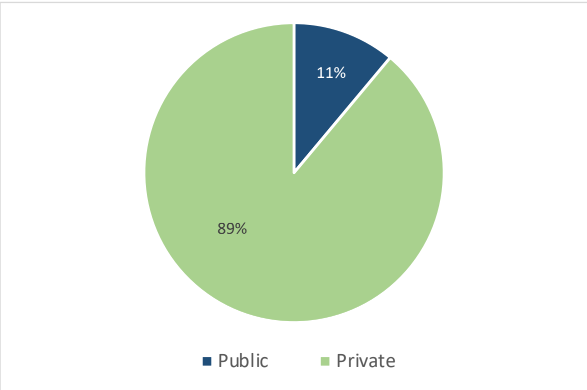
#	ITEM	$M	% COMPOSITION
On-trip expenditure items:			
1	Fuel	$39.8	26%
2	Groceries	$23.2	15%
3	Ammunition	$18.6	12%
4	Vehicle/motorbike/boat repairs	$16.8	11%
5	Hunting equipment	$17.4	11%
6	Other	$16.3	11%
7	Takeaways & restaurant meals	$9.9	6%
8	Accommodation	$6.7	4%
9	Fees to landowners	$4.9	3%
			(100%)
	Total	**$153.7**	**26%**
Off-trip expenditure items:			
1	Firearms, bows and other firearm equipment	$164.9	37%
2	Vehicles/motorbikes/boats	$65.1	15%
3	Ammunition	$62.9	14%
4	Hunting equipment	$45.9	10%
5	Vehicle/motorbike/boat maintenance	$27.7	6%
6	Training	$20.8	5%
7	Licences (game, firearm)	$21.8	5%
8	Hunting club memberships	$19.1	4%
9	Other	$13.3	3%
10	Hunting dog expenses	$6.4	1%
			(100%)
	Total	**$447.9**	**74%**

[14] Expenditure, itself, is not economic contribution. Expenditure by hunters generates economic activity by the businesses supplying goods and services to the hunters. These businesses, in turn, spend money on employees (wages) and on other businesses supplying them with goods and services, and their employees spend their wages too, and so on. Some of the money leaves the economy in the form of purchases of imported goods/services and doesn't contribute to economic activity. The economic activity generated by the hunter supply chain within NSW is the economic contribution that is estimated in this study, measured in terms of contribution to GSP/GRP and employment.

Detailed on and off-trip expenditure tables (by game licence status, land tenure, hunting method and LGA) are provided in Appendix 3. Total expenditure by local government area is mapped and show in Appendix 3 (Figure A3-1)

ECONOMIC CONTRIBUTION BY LAND TENURE

Almost 90 per cent of the total gross economic contribution to NSW is from hunting on private land (Figure 4-2a) and the majority is from activities by non-game licence holders hunting, comprising $377m to GSP in 2022 out of a total of $509m (Figure 4-2b).



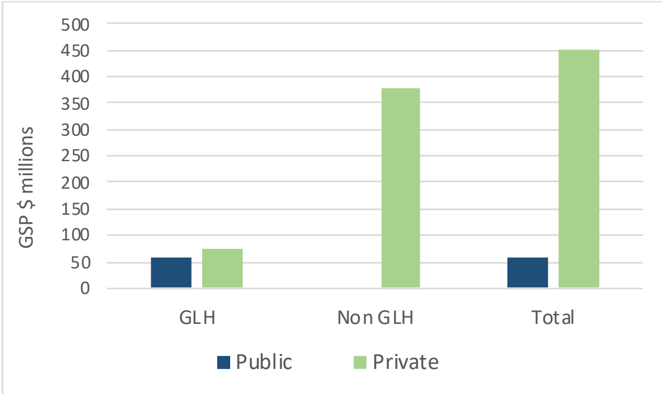


Figure 4-2: **a) Contribution GSP by land tenure status** **b) Contribution GSP by land tenure and licence**

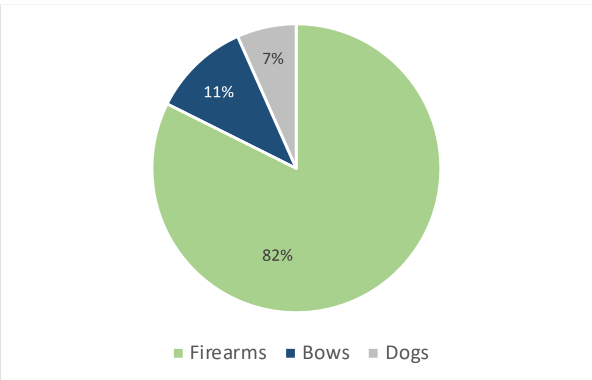
The modelling results for total economic contribution (measured as GSP and FTE) by land tenure and licence status are summarised in Table 4-3.

Table 4-3: Summary of economic contribution by land tenure – Gross State Product and Employment

	GROSS STATE PRODUCT			EMPLOYMENT		
	Public $m	Private $m	Total GSP $m	Public	Private	Total FTE
Game licence holders	$56.3	$75.2	**$131.5**	465	621	1,087
Non licence holders		$377.4	**$377.4**		3,105	3,105
All hunters	**$56.3**	**$452.6**	**$508.9**	**465**	**3,727**	**4,192**

ECONOMIC CONTRIBUTION BY HUNTING METHOD

Over 80 per cent of the total gross economic contribution to NSW is from hunting using firearms (Figure 4-3a) followed by bows then dogs. The majority of this economic contribution is from non-game licence holders using firearms, comprising $323m out of a total of $509m (Figure 4-3b).



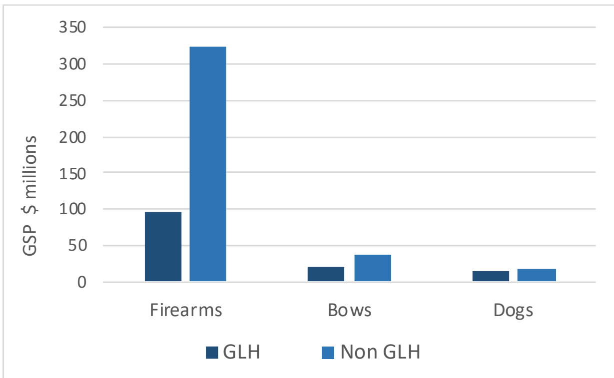


Figure 4-3: a) Contribution GSP by hunting method **b) Contribution GSP by method and licence status**

The modelling results for total economic contribution (measured as Gross State Product and Employment) by hunting method and licence status are summarised in Table 4-4 and Table 4-5.

Table 4-4: Summary of economic contribution by method – Gross State Product

	GROSS STATE PRODUCT			
	Firearms $m	Bows $m	Dogs $m	Total GSP $m
Game licence holders	$96.1	$19.5	$15.9	$131.5
Non licence holders	$323.1	$36.3	$18.0	$377.4
All hunters	**$419.2**	**$55.9**	**$33.9**	**$508.9**
% contribution	82%	11%	7%	100%

Table 4-5: Summary of economic contribution by method – Employment

	EMPLOYMENT FTE			
	Firearms	Bows	Dogs	Total FTE
Game licence holders	793	162	131	1,087
Non licence holders	2,657	300	148	3,105
All hunters	**3,450**	**462**	**279**	**4,192**
% contribution	82%	11%	7%	100%

Detailed results from the economic contribution modelling (by game licence status, land tenure, hunting method and LGA) are provided in Appendices 4 and 5.

SENSITIVITY ANALYSIS

Due to uncertainty around population estimates for hunters that use non-firearm hunting methods, a sensitivity analysis was performed to determine the impact on the economic contribution of recreational hunting assuming this population is larger than modelled. Assuming there is less overlap in firearm and non-firearm methods in the non-game licenced hunting population than was modelled, an additional 40,000 non-game licence hunters that do not hunt with firearms was modelled in the sensitivity analysis.

The sensitivity analysis shows that results are highly sensitive to changes in hunter population estimates (Table 4-6). An increase in the number of non-game licence, non-firearms hunters by 40,000 individuals is estimated to triple the economic contribution of recreational hunting to NSW. These non-game licence, non-firearms hunters tended to spend more and were also relatively underrepresented in the survey, and thus had a comparatively large influence on the results.

Table 4-6: Sensitivity analysis results – non-licence, non-firearms population increase

	NSW HUNTER POPULATION	TOTAL EXPENDITURE ($M)	TOTAL EMPLOYMENT (FTE)	GROSS STATE PRODUCT ($M)
As modelled	197,000	601.6	4,192	508.9
Increased non-game licenced, non-firearm hunter population	237,000	1,621.8	12,995	1,579.1

The results of the sensitivity underline the importance of collecting robust statistics on the non-game licenced hunting population and in particular those hunters that do not use firearms.

4.3 REGIONAL ANALYSIS

The geographic structure of the analysis was determined after analysing the spatial distribution of responses. It was based on collating the results according to combined jurisdictions for Sydney, Wollongong and Newcastle (i.e. metro) and regional local government areas (i.e. non-metro).

The regional LGAs with the highest gross economic contribution were Tamworth Regional, Central Coast, Port Macquarie-Hastings, Clarence Valley, Bathurst, Albury City, Dubbo Regional, Coffs Harbour and Orange.

Table 4-7 (over page) provides a breakdown of the economic contribution (direct and flow-on impacts to regional economies) for the top nine regional LGAs (contributing > $5m/year) and combined metro jurisdictions. The metro jurisdictions accounted for 46 per cent of the economic contribution to NSW and the top nine regional jurisdictions contributed a further 14 per cent .

The remaining regional LGAs contributed a further $90.1m (18 per cent) and inter-regional trade[15] accounted for the balance i.e. $109.7m or 22 per cent .

The relative share of GSP between these regional sub-groups is shown in Figure 4-4.

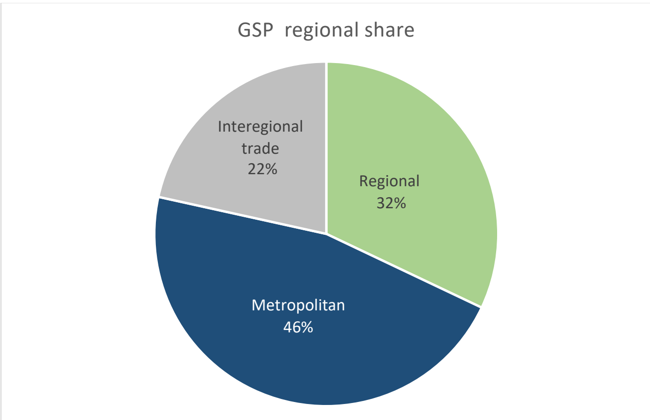


Figure 4-4: Regional share of GSP in NSW

Details of the economic contribution (GSP and employment) of each jurisdiction are provided in Appendices 4 and 5.

Table 4-7: Highest economic contribution jurisdictions - all hunters using all methods

REGION	ECONOMIC CONTRIBUTION	
	GSP $m 2022	**Employment FTE**
Metro:		
Greater Sydney	$195.7	1,573
Greater Newcastle	$35.5	316
Greater Wollongong	$4.9	45
Subtotal	$236.1	1,934
% NSW total	46%	46%
Non-metro:		
Tamworth Regional	$14.1	126
Central Coast	$11.4	102

15 Inter-regional trade is the contribution to GSP in NSW arising from trade between regions within NSW

REGION	ECONOMIC CONTRIBUTION	
Port Macquarie-Hastings	$8.8	89
Clarence Valley	$8.3	78
Bathurst Regional	$7.5	69
Albury City	$6.5	56
Dubbo Regional	$6.5	59
Coffs Harbour	$5.0	45
Orange	$5.0	45
Subtotal	$73.0	669
% NSW total	14%	16%

Figures 4-5a) and 4-5b) (over page) map the jurisdictions with the highest economic contribution from hunting, measured as $m GSP and FTE, in NSW. These correspond to the metropolitan jurisdictions and the LGAs with the most populous regional centres.

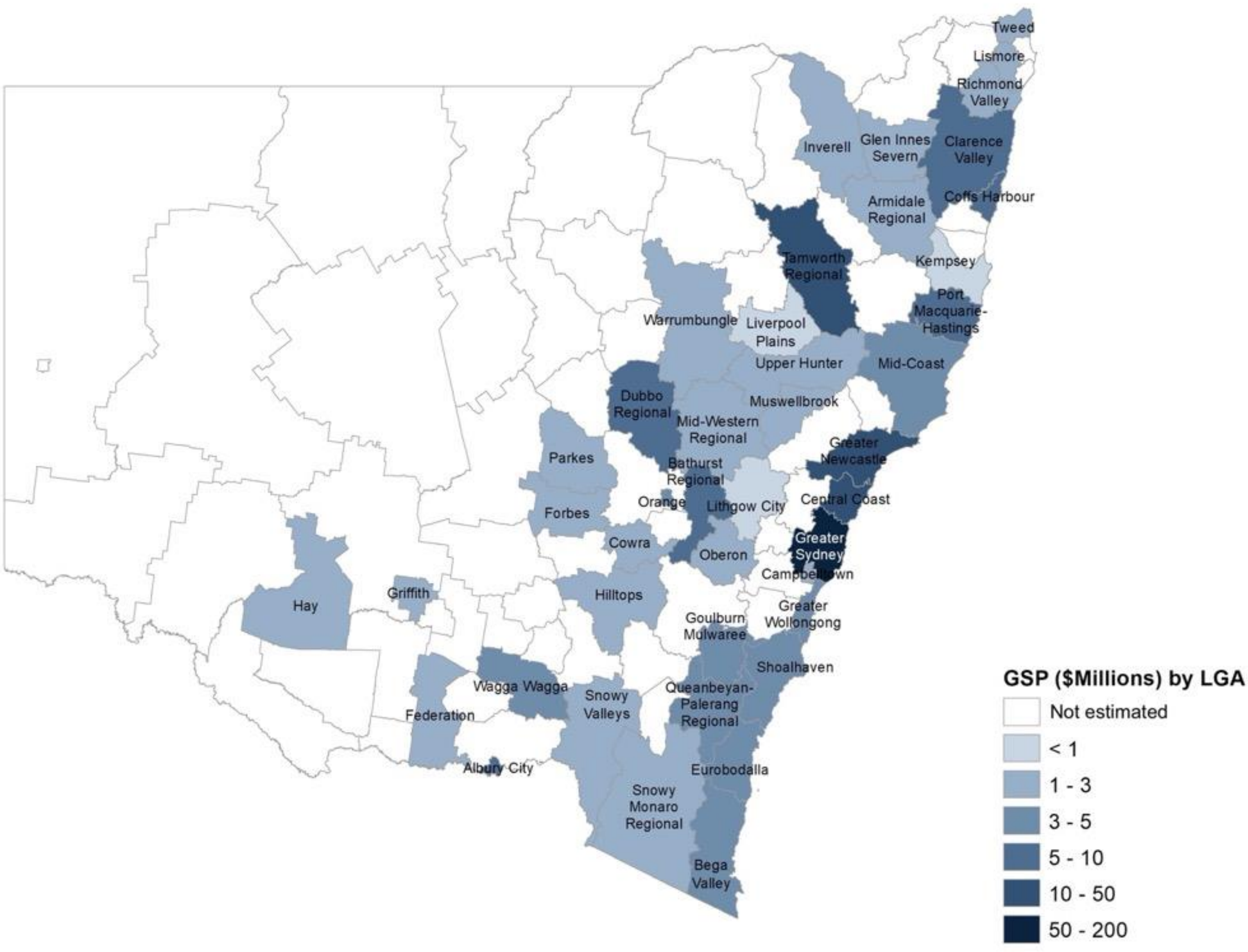


Figure 4-5a: Jurisdictions with the highest economic contribution from hunting, measured as $m GSP, in NSW, 2021-22 – all hunters (GHL and non-GHL)

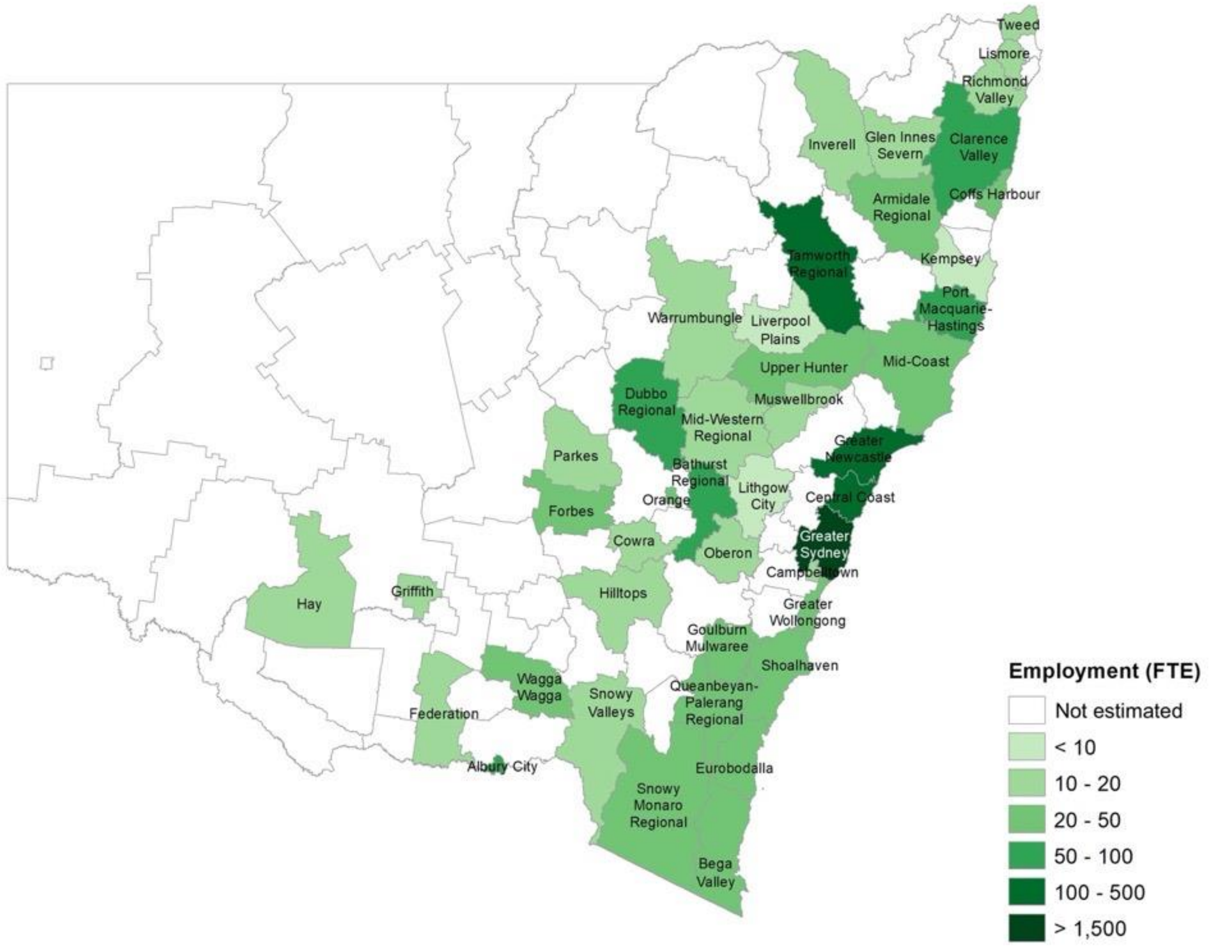


Figure 4-4b: Jurisdictions with the highest economic contribution from hunting, measured as employment (FTE), in NSW, 2021-22 – all hunters (GHL and non-GHL)

Figure 4-6 (over page) shows the total contribution to regional economies by hunting method in the most important hunting jurisdictions in NSW.

Economic activity generated from hunting using firearms was highest in Greater Sydney, Greater Newcastle, Central Coast and Tamworth Regional.

The economic contribution from bow hunting was greatest in Greater Sydney, Port Macquarie-Hastings, Greater Newcastle, Clarence Valley and Eurobodalla whereas the contribution of hunting with dogs was greatest in in Greater Sydney, Tamworth Regional, Upper Hunter and Greater Newcastle.

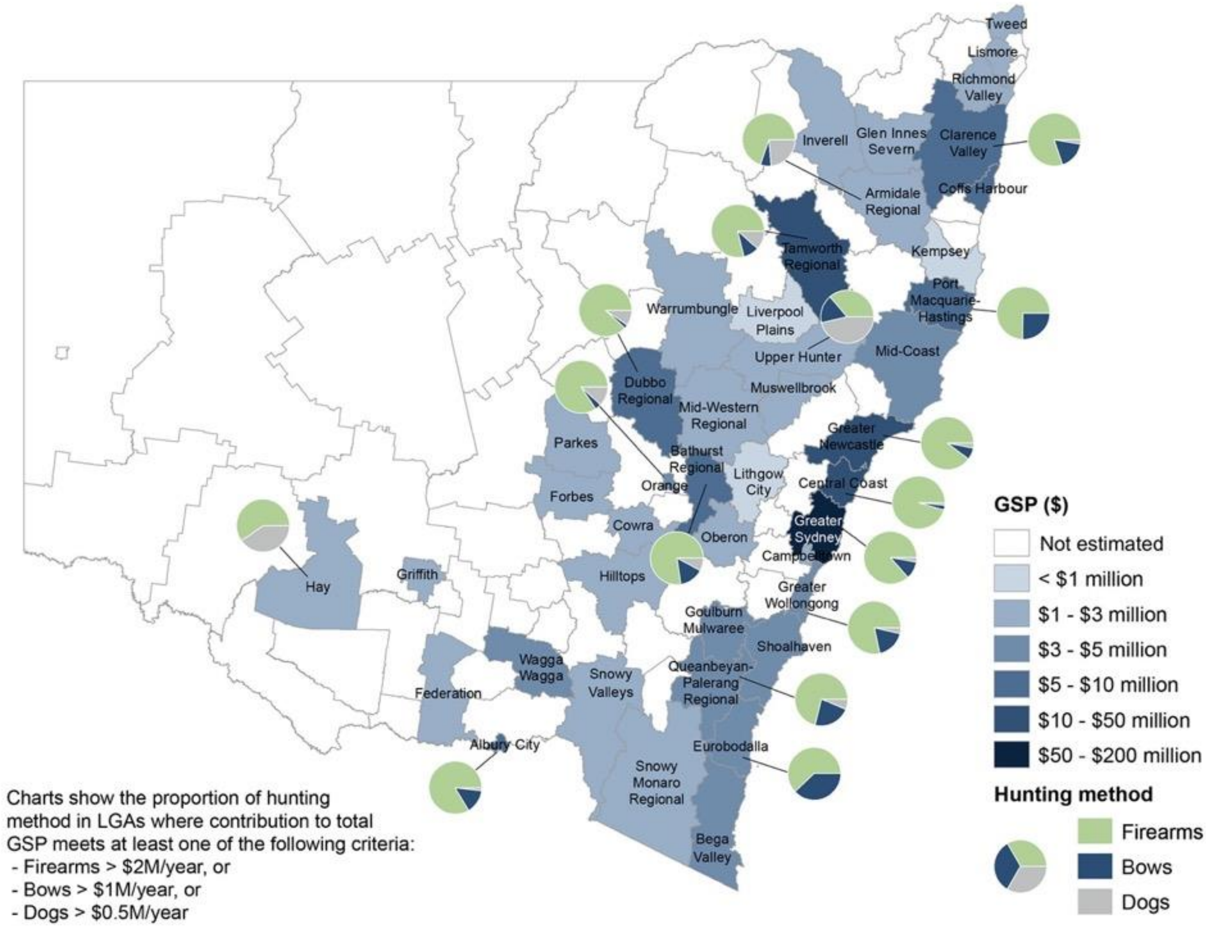


Figure 4-5: Distribution of economic contribution across NSW by LGA and hunting method

4.4 CHANGE IN ECONOMIC CONTRIBUTION FROM 2017

The (nominal) economic contribution of hunting by **game licence holders**[16] to Gross State Product increased by just over 10 per cent since the 2017 survey. After correcting for inflation this represents only a 3 per cent increase over the five-year period. Of note, was that the contribution from bow hunting increased by 50 per cent , as shown in Table 4-8.

Table 4-8: Comparison of economic contribution results – $m Gross State Product 2017 and 2022

GAME LICENCE HOLDERS	2017	2017 (CPI ADJUSTED[17])	2022	% CHANGE[18]
Firearms	$92	$99	$96.1	-3%
Bows	$12	$13	$19.5	50%
Dogs	$15	$16	$15.9	0%
All methods	**$119**	**$128**	**$131.5**	**3%**

The (nominal) change in GSP by land tenure is illustrated in Figure 4-6 indicating there was an increase in hunting activity on public land and a reduction on private land.

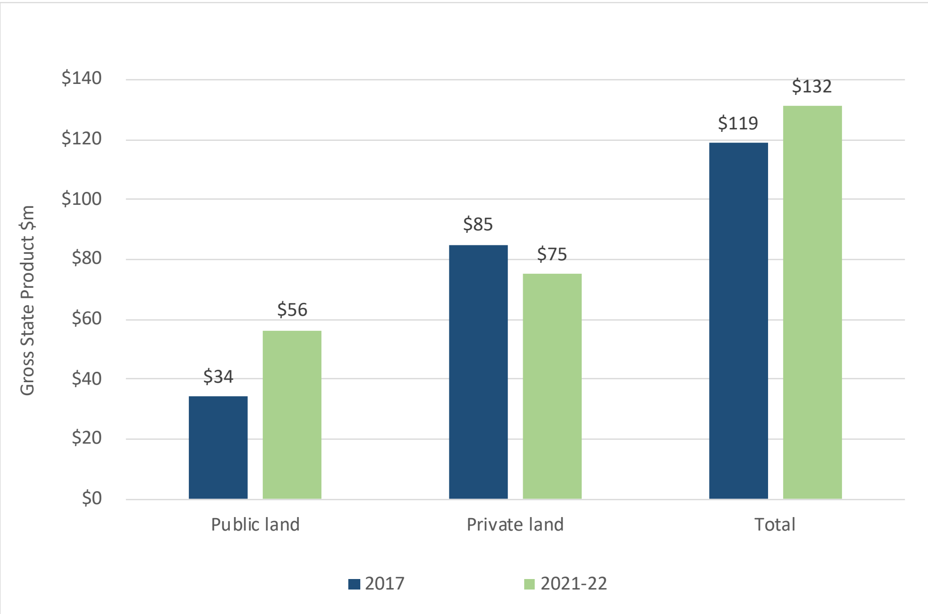


Figure 4-6: a) Change in GSP ($m) 2017-2022 by land tenure

The change in modelling outputs between the two surveys, measured by $GSP per hunter, for game licence holders and non-game licence hunters is shown in Table 4-9.

Table 4-9: **Change in modelling outputs on total $GSP/hunter - 2017 and 2022**

#	PARAMETER	2017	2022
1	Total GSP ($/hunter) - # game licence holders	$5,475	$6,209
2	Total GSP ($/hunter) - # non game licensed hunters	$2,186	$2,650
3	Total GSP ($/hunter) - all	$2,588	$2,951

16 Due to the very low survey response rate of non-game licence holders in the 2017 survey the comparison is confined to game licence holders only

17 Reserve Bank of Australia Inflation calculator: https://www.rba.gov.au/calculator/annualDecimal.html

18 Percentage change in GSP compares 2017 (CPI adjusted) with 2022 survey

5 Hunter intentions

Hunting environment

A range of environmental factors were likely to have impacted hunting activity during the 12 months prior to the survey period (September-October 2022).

There was restricted access to some public land areas, including state forests, due to damage to infrastructure from the 2019/20 bushfires (not yet repaired) and extended wet seasonal conditions since 2020 causing extensive flooding in some parts of NSW.

These factors colliding with travel restrictions imposed during the COVID-19 pandemic were likely to have reduced hunting activity in NSW.

Impact of COVID-19 pandemic

The COVID travel restrictions also impacted the level of hunting activity over the past 12 months. Three quarters of all respondents indicated that they had taken less hunting trips. Less than 5 per cent hunted more and around 15 per cent hunted the same. There was no difference in the impact of the restrictions on hunting activity between metro versus non metro or regionally based hunters.

One third of hunters indicated that their hunting trips had been closer to home while just over half of hunters indicated that their hunting had occurred in the same general locations. Only 3 per cent of hunters had hunted further away from home during the past 12 months. Again there was no difference in changes in trip location between metro and regionally based hunters.

The majority of respondents (65 per cent) indicated that compared to pre-COVID-19 times they spent about the same or more on hunting activities. One quarter of respondents indicated that they had spent less (and 10 per cent were unsure), as shown in Figure 5-1.

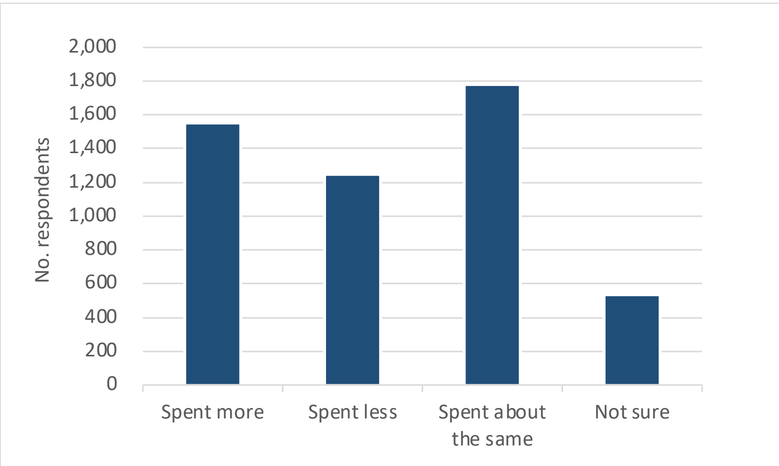


Figure 5-1: Expenditure on hunting activity during COVID-19 times

Hunter intentions

Survey respondents were asked about their intended level of hunting activity over the next 12 months and two years.

There was a resounding affirmative response by hunters. Only 4 hunters (out of 5,207 in the sample) indicated that they did not intend to hunt over the next 12 months. Less than 5 per cent of respondents indicated that they either did not intend to hunt or were unsure if they would hunt, over the next two years.

100 per cent or all of those who had not hunted in the past 12 months (20 per cent of respondents) were intending to hunt in future. Of all hunters (including those who had and those who had not hunted in the past 12 months), two thirds were intending to hunt more, one third the same and 1 per cent less (4 per cent were unsure).

In conclusion, hunters generally took less trips than usual and hunted closer to home during the surveyed period. This change in behaviour was likely to have been impacted by the COVID-19 travel restrictions in NSW.

Hunter responses were unequivocal in that they intended to return to a higher hunting activity in future. This indicates that it is probable that there will be an increase in economic contribution in a future non-COVID and bushfire and flood recovered environment.

Modelling future hunting activity and GSP

A model has been provided to the Department of Primary Industries (Recreational Hunting Forecast model) to update hunting expenditure and economic contribution based on available update data.

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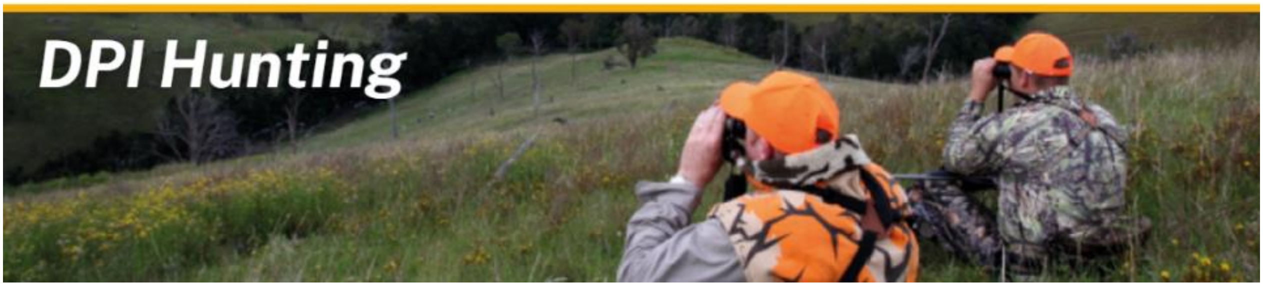
Appendix 1: Survey questionnaire

NSW Hunting Study Questionnaire

Do you hunt in NSW?

Department of Primary Industries
Department of Regional NSW



If you do, we would love to hear from you. Your opinions will help DPI Hunting (part of the NSW Department of Primary Industries) to better understand the experiences of recreational hunters in NSW and the economic 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, which is best done on a computer.

The survey will be open between September 26th 2022 and 17th October 2022 and will be conducted by Action Market Research who are a professional market research company, on behalf of DPI Hunting. 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 Research Society and the Privacy Act.

To view Action Market Research's privacy policy, please click here.

<Start Survey> button [Go to A1]

Ask All

A1	**Firstly, we have a few questions about you.** **Are you...** 1. Male 2. Female 3. Other 4. Do not wish to answer	Compulsory Single response

Ask All

A2	**And which of the following age ranges do you fall into?** 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	Compulsory Single response

Ask All

A3	**Which state or territory do you currently live in?** 1. New South Wales 2. Queensland 3. Victoria 4. South Australia 5. Tasmania 6. Western Australia 7. Northern Territory 8. Australian Capital Territory 9. Outside Australia	Compulsory Single response

Ask if A3=1 (New South Wales)

A4	**Where do you live in New South Wales?** Please enter your postcode and select your town/suburb from the drop-down list. **POSTCODE: __ __ __ __** **Town/location ___________** ERROR MESSAGE IF INVALID POSTCODE: Please enter a valid NSW postcode.	Compulsory Limit to 4 digits textbox for postcode NSW towns/suburb - open-ended

[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.**	

Ask All

S1	**Have you hunted in NSW in the past 12 months?** 1. Yes 2. No	Compulsory Single response

Ask All

S2a	**Do you plan to go hunting in NSW in the next 12 months?** 1. Yes 2. No [If S1=2 AND S2a=2 go to TERMINATE]	Compulsory Single response

Ask if S1=1 AND S2a=1

S2b	**And, in the next 12 months, do you plan to hunt in NSW:** 1. More than you have in the past 12 months 2. Less than you have in the past 12 months 3. About the same as you have in the past 12 months 4. Not sure/don't know	Compulsory Single response

Ask if S2a=1

S2c	**And looking further ahead, do you plan to hunt in NSW in 2024?** 1. Yes 2. No 3. Not sure/don't know	Compulsory Single response

Ask All

S3	**Do you hold a NSW game hunting licence?** **1. Yes, I hold a restricted game hunting licence** **2. Yes, I hold a general game hunting licence** **3. No, the type of hunting I do does not require a NSW game hunting license**	Compulsory Single response

Ask All

S4	**Do you hold a current NSW firearm licence endorsed for recreational hunting/vermin control?** 1. Yes 2. No	Compulsory Single response

Ask All

S5a	**Do you hunt with an interstate firearms licence endorsed for recreational hunting?** 1. Yes 2. No	Compulsory Single response

Ask All

S5b	**Are you an overseas visitor hunting with a NSW Firearms Registry Safari/Hunting Participation Permit?** 1. Yes 2. No	Compulsory Single response

Ask All

S6	**Do you bow hunt in NSW?** 1. Yes 2. No	Compulsory Single response

Ask All

S7	**Do you hunt pigs with dogs in NSW?** 1. Yes 2. No	Compulsory Single response

If S1=2 AND S2a=2 go to TERMINATION (not hunted in past 12 months and do not plan to go hunting in next 12 months in NSW)

If **ALL** the responses to S3 – S7 are “No” (i.e. IF (AND (S3, S4, S5, S6, S7)) = No), go to TERMINATION (not a recreational hunter).

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

TERMINATION	**Thank you very much for your interest in participating in this survey, however we can only include those who are over the age of 18, have recreationally hunted in New South Wales in the past 12 months or intend to do so in the next 12 months.**

INTROH	**This next section asks questions about the animals you hunt**

Ask if S1=1 (i.e. hunters who hunted in NSW in the last 12 months)

H1a	**Please select from the list below the animals you hunted in NSW in the last 12 months** **Please select all that apply** 1. Native game birds (ducks) 2. Deer 3. Pigs 4. Other non-native animals (i.e., feral cat, feral dog (not dingo), feral goat, fox, hare, rabbit, starling, Indian myna, feral pigeon) 5. Non-native game birds (i.e., Bobtail quail, California quail, Guinea fowl, partridge, peafowl, pheasant, Spotted dove, turkey)	Check Boxes Compulsory Multiple response

Ask if S2a=1(i.e. hunters who plan to hunt in NSW in the next 12 months)

H1b	**Please select from the list below the animals you plan to hunt in NSW in the next 12 months** **Please select all that apply** 1. Native game birds (ducks) 2. Deer 3. Pigs 4. Other non-native animals (i.e., feral cat, feral dog (not dingo), feral goat, fox, hare, rabbit, starling, Indian myna, feral pigeon) 5. Non-native game birds (i.e., Bobtail quail, California quail, Guinea fowl, partridge, peafowl, pheasant, Spotted dove, turkey)	Check Boxes Compulsory Multiple response

Ask if S1=1 AND more than 1 animal group selected at H1a

H2	**Just thinking about your hunting trips in NSW, how often did you hunt for these animals?** *Note: A hunting trip is any time you left your own property to hunt.*	Radio button Grid Compulsory Single response per row

	ROTATE	Some trips	About half of trips	Most trips	All trips
1.	Native game birds (ducks) [Ask if native duck selected at H1a]				
2.	Deer [Ask if deer selected at H1a]				
3.	Pigs [Ask if pigs selected at H1a]				
4.	Other pest animals (i.e., feral cat, feral dog (not dingo), feral goat, fox, hare, rabbit, starling, Indian myna, feral pigeon) [Ask if othe pest animals selected at H1a]				
5.	Non-native game birds (i.e., Bobtail quail, California quail, Guinea fowl, partridge, peafowl, pheasant, Spotted dove, turkey) [Ask if non-native game birds selected at				

INTRO3	**This next section asks a question about the main reasons you hunt.**

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).** *[Please select **5 reasons** from the following]* 1. …to relax and unwind 2. …to spend time in the outdoors 3. …to spend time with family 4. …to spend time with friends 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. …because hunting is exciting 17. …other (please describe)	Check Boxes Compulsory 5 responses Multiple response Randomise 1 to 16

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

Ask all

C1	**Firstly, how many hunting trips have you been on in the last 12 months, including NSW <u>and</u> interstate hunting trips?** Please count both **overnight** and **day trips**. An **overnight trip** is where you stayed overnight in another location. A **day trip** is any time you left your property to hunt but did not stay overnight. ______ trips	Compulsory Numeric field Allow zero

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?** 1. No, hunted within NSW only 2. Yes, hunted both within and outside NSW	Compulsory Single response

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

Ask if S1=2 (No) AND S2a=1 (Yes) (plan to hunt in NSW in next 12 months)

[C4 addresses 2 categories:

1. S1=No (S2a=Yes), C1>0, i.e. active, not hunted in NSW but plan to hunt in NSW in next 12 months
2. S1=No (S2a=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?** 1. 1% to 25% of all hunting trips 2. Between 26% and 50% of all hunting trips 3. Between 51% and 75% of all hunting trips 4. More than 75% of all hunting trips	Compulsory Single response

Ask if C2=1 OR C3>0 (at least one hunting trip in NSW in last 12 months)

C5	**Have you hunted on NSW public land in the last twelve months?** 1. Yes, hunted on NSW public land only 2. Yes, hunted on both NSW public land and private land 3. No, hunted on NSW private land only	Compulsory Single response

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 S4=1 OR S5a=1 OR S5b=1 AND C5=1, 2]	7	1	2	3	4	5	6
2.	Firearms on private land [Show if S4=1 OR S5a=1 OR S5b=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 S6=1 AND C5=2,3]	7	1	2	3	4	5	6
5.	Hunting pigs with dogs on public land [Show if S7=1 AND C5=1, 2]	7	1	2	3	4	5	6
6.	Hunting pigs with dogs on private land [Show if S7=1 AND C5=2,3]	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')

<table>
<tr><td>C7a</td><td>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 <u>nearest</u> town/s to where you hunted?

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.

<table><tr><td></td><td></td><td>Town 1</td><td>Town 2</td><td>Town 3</td><td>Town 4</td></tr><tr><td>a.</td><td>Firearms on public land</td><td></td><td></td><td></td><td></td></tr></table></td><td>Compulsory
Text grid
Maximum four locations</td></tr>
</table>

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

<table>
<tr><td>C7b</td><td>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 <u>nearest</u> town/s to where you hunted?

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.

<table><tr><td></td><td></td><td>Town 1</td><td>Town 2</td><td>Town 3</td><td>Town 4</td></tr><tr><td>b.</td><td>Firearms on private land</td><td></td><td></td><td></td><td></td></tr></table></td><td>Compulsory
Text grid
Maximum four locations</td></tr>
</table>

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

<table>
<tr><td>C7c</td><td>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 <u>nearest</u> town/s to where you hunted?

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.

<table><tr><td></td><td></td><td>Town 1</td><td>Town 2</td><td>Town 3</td><td>Town 4</td></tr><tr><td>c.</td><td>Bows on public land</td><td></td><td></td><td></td><td></td></tr></table></td><td>Compulsory
Text grid
Maximum four locations</td></tr>
</table>

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

<table>
<tr><td>C7d</td><td>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 <u>nearest</u> town/s to where you hunted?

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.

<table><tr><td></td><td></td><td>Town 1</td><td>Town 2</td><td>Town 3</td><td>Town 4</td></tr><tr><td>d.</td><td>Bows on private land</td><td></td><td></td><td></td><td></td></tr></table></td><td>Compulsory
Text grid
Maximum four locations</td></tr>
</table>

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 <u>nearest</u> town/s to where you hunted?** **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.	Compulsory Text grid Maximum four locations

		Town 1	Town 2	Town 3	Town 4
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	**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 <u>nearest</u> town/s to where you hunted?** **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.	Compulsory Text grid Maximum four locations

		Town 1	Town 2	Town 3	Town 4
f.	Hunting pigs with dogs on private land				

Ask if C6 = at least one trip (codes 1 to 6) for <u>more than one row</u> (any hunting method on landtype)

C8	**Which best describes your main hunting method used during your <u>most recent hunting trip</u> in NSW?** 1. Firearms on public land [list if C6_1 is code 1-6] 2. Firearms on private land [list if C6_2 is code 1-6] 3. Bow hunting on public land [list if C6_3 is code 1-6] 4. Bow hunting on private land [list if C6_4 is code 1-6] 5. Hunting pigs with dogs on public land [list if C6_5 is code 1-6] 6. Hunting pigs with dogs on private land [list if C6_6 is code 1-6]	Compulsory Single response

Ask if C6=at least one method AND C6_method=1 to 6 (at least one trip is recorded at C6)

INTRO5	**Now we would like you to think about your <u>most recent hunting trip</u> in NSW where you hunted using** **<IF C6 = at least one trip (codes 1 to 6) for ONLY one row (any hunting method on land type), then INSERT C6_hunting method+land_type (including fullstop)>** **Otherwise go to quota (to be determined)**

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	**Where did you mainly hunt on that trip?** 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]**	Compulsory Single response

Ask if C6=at least one method AND C6_method=1 to 6 (at least one trip is recorded at C6)

INTRO6	**Still thinking about your <u>most recent hunting trip</u> in NSW where you hunted using** <INSERT Hunting method from INTRO5 > **on** <INSERT landtype from INTRO5>

Ask if C6=at least one method AND C6_method=1 to 6 (at least one trip is recorded at C6)

E3	**During this hunting trip in New South Wales, what did you spend money on?** 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. 1. Fuel 2. Groceries (including dog food), drinks and alcohol for self-catering/consumption at your accommodation 3. Ammunition 4. Hunting equipment (e.g. decoys, clothing) 5. Takeaways & restaurant meals 6. Accommodation 7. Vehicle/motorbike/boat repairs 8. Fees to landowners 9. Other items needed for your hunting trip 10. Not applicable – I did not spend any money on this trip	Compulsory Multiple response 'Not applicable' removes all other selections

Ask if E3≠10 (codes 1 to 9) (spent money on at least one item in this trip)

E4	**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?** Please include: • 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) Please **exclude:** • Any money paid on your behalf by someone else who travelled with you on the hunting trip.	Compulsory Single response per row

		$1-$50	$51-$100	$101-$200	$201 - $500	$501 - $1,000	$1,001 or more
a.	[Responses from E3]	1	2	3	4	5	6
b.							

Ask If E3= 1 to 9 (any item except 10 (not applicable))

E5a	**What was the location of the business/es from which you bought these items?** For example, were the items bought in your hometown/city, at the main hunting destination or at another location? **If you bought items from more than one location, please select the location where the <u>most money was spent</u>.**	Compulsory Single response per row

		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 Compulsory Textbox

		Which NSW town or city?
a.	[Responses from E5a where E5a=3]	[Specify]

INTRO7	**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.** **Please don't include expenses made during hunting trips; this type of expense has been addressed in the previous section.**

Ask All [including those who have not been hunting in the last 12 months]

E6	**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>?** 1. Firearms, bows and other firearm equipment 2. Ammunition 3. Training to support your hunting activities (e.g., target practice, hunter education courses) 4. Hunting club memberships 5. Licences (game, firearm) 6. Hunting dog expenses 7. Vehicles/motorbikes/boats (purchased with hunting in mind) 8. Vehicle/motorbike/boat maintenance 9. Other equipment to support your hunting activities (e.g., vehicle equipment/accessories, safety equipment, camping equipment, clothing, knives, binoculars, etc.) 10. Other items/expenditures to support your hunting activities 11. Not applicable – I did not spend any money to support my hunting activities in the past 12 months	Compulsory Multiple response 'Not applicable' removes all other selections

Ask if E6≠11 (codes 1 to 10) (spent money on at least one item that support hunting activities)

E7a	**And during the past 12 months, approximately how much have you spent on these items?**	Compulsory Single response per row

		$1-$100	$101-$500	$501-$1,000	$1,001 - $2,000	$2,001 - $5,000	$5,001 - $10,000	$10,001 or more

a.	[Responses from E6]	1	2	3	4	5	6	7

Ask if E7a=7 for at least 1 item (if "$10,001 or more" was spent on one or more items)

E7b	**You indicated that you spent more than $10,000 on the following items, please estimate how much you actually spent.** Please input whole numbers only without commas, full stops, dollar signs, etc.	Compulsory Single response per row Allow integer input

		$
a.	[Responses from E7a=7]	________________

Ask if E6=7 to 10 (Vehicles 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...	1%-25%	26%-50%	51%-75%	76%-100%
a.	[Responses from E6]	1	2	3	4
b.					

Ask if E6≠11 (codes 1 to 10) (spent money on at least one item that support hunting activities)

E9	**What is the main 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 Textbox
<table><tr><td></td><td></td><td>**Which NSW town or city?**</td></tr><tr><td>a.</td><td>[Responses from E9 where E9=4]</td><td>*[Specify]*</td></tr></table>		

Ask if E6≠11

E11	**And compared with pre-COVID-19 times, do you think you spent:** 1. More to support your hunting activities 2. Less to support your hunting activities 3. About the same amount to support your hunting activities 4. Not sure/can't say	Compulsory Single response

Ask all

INTRO	**Now we would like to find out whether COVID-19 restrictions affected your hunting activities**

Ask if S1 =1 (Yes) and C1>0 (Hunted in the last 12 months and had at least one trip)

G1	**During the period of COVID-19 restrictions, did you go on:** 1. More hunting trips than you usually do 2. Less hunting trips than you usually do 3. About the same number of hunting trips as you usually do 4. Not sure/can't say	Compulsory Single response

Ask if G1 = 1-3

G2	**And on these trips during the COVID-19 restrictions, were they:** 1. Generally closer to home than usual 2. Generally further away from home than usual 3. In the same general locations as you usually go to 4. Not sure/can't say	Compulsory Single response

OUTRO	**That's the end of the survey. Thank you very much for your time and assistance today.** **Your response has been successfully submitted.**

Appendix 2: Economic contribution results summary

CONTRIBUTION TO GROSS STATE PRODUCT ($M) IN NSW

Table A2-1: Summary - contribution to GSP ($m)

GSP ($M)	FIREARMS	BOWS	DOGS	TOTAL
Hunters with NSW game hunting licences				
Public land				
Direct	15.6	3.3	2.6	21.4
Flow-on	25.3	5.3	4.3	34.9
Total	40.9	8.6	6.9	56.3
Private Land				
Direct	21.0	4.2	3.4	28.6
Flow-on	34.1	6.8	5.7	46.6
Total	55.2	11.0	9.0	75.2
Grand total	**96.1**	**19.5**	**15.9**	**131.5**
Hunters without NSW game hunting licences				
Private Land				
Direct	125.3	14.1	6.7	146.1
Flow-on	197.8	22.3	11.3	231.3
Total	**323.1**	**36.3**	**18.0**	**377.4**
All hunters				
Public land				
Direct	15.6	3.3	2.6	21.4
Flow-on	25.3	5.3	4.3	34.9
Total	40.9	8.6	6.9	56.3
Private Land				
Direct	146.4	18.2	10.1	174.7
Flow-on	231.9	29.0	16.9	277.9
Total	378.3	47.3	27.0	452.6
Grand total	**419.2**	**55.9**	**33.9**	**508.9**

CONTRIBUTION TO EMPLOYMENT (FTE) IN NSW

Table A2-2: Summary - contribution to employment (FTE)

FTE	FIREARMS	BOWS	DOGS	TOTAL
Hunters with NSW game hunting licences				
Public land				
Direct	182	39	30	250
Flow-on	155	33	27	215
Total	337	71	57	465
Private Land				
Direct	246	49	40	335
Flow-on	210	42	35	286
Total	456	91	75	621
Grand total	**793**	**162**	**131**	**1,087**
Hunters without NSW game hunting licences				
Private Land				
Direct	1,445	164	78	1,688
Flow-on	1,212	136	69	1,417
Total	**2,657**	**300**	**148**	**3,105**
All hunters				
Public land				
Direct	182	39	30	250
Flow-on	155	33	27	215
Total	337	71	57	465
Private Land				
Direct	1,692	213	118	2,023
Flow-on	1,422	178	104	1,704
Total	3,113	391	222	3,727
Grand total	**3,450**	**462**	**279**	**4,192**

Appendix 3: Hunting expenditure tables

NSW HUNTING EXPENDITURE

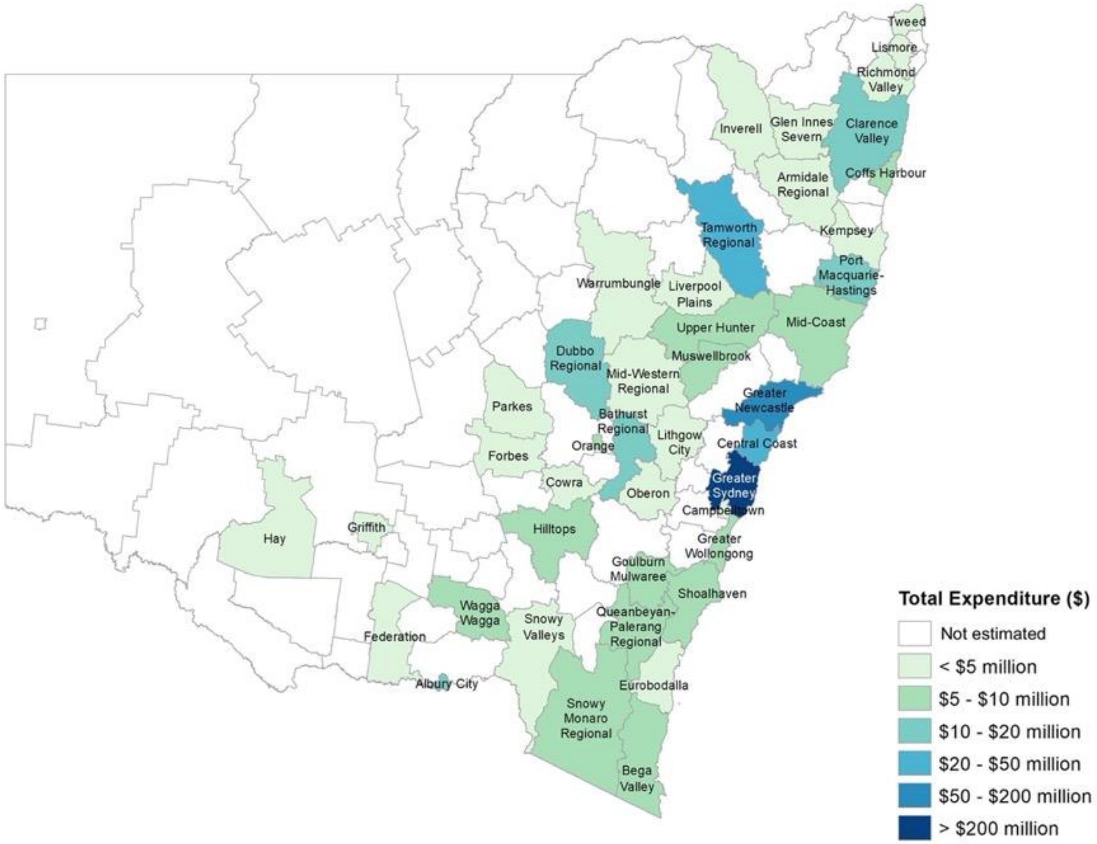


Figure A3-1: Total expenditure by local government area

NSW EXPENDITURE – HUNTERS WITH GAME HUNTING LICENCES

Table A3-1: Expenditure by on and off-trip item $m

	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL	%
On-trip expenditure								
Fuel	4.3	6.7	0.9	1.7	2.1	2.8	18.4	26%
Groceries	2.8	4.1	0.5	0.9	1.0	1.1	10.4	15%
Ammunition	1.2	3.6	0.2	0.4	0.3	0.8	6.6	9%
Hunting equipment	2.3	3.9	0.7	1.2	0.7	0.7	9.6	13%
Takeaways & restaurant meals	1.3	1.9	0.2	0.4	0.4	0.5	4.7	7%
Accommodation	1.3	1.5	0.2	0.3	0.3	0.2	3.8	5%
Vehicle/motorbike/boat repairs	1.5	3.2	0.6	0.7	0.6	1.0	7.7	11%
Fees to landowners	0.4	1.2	0.2	0.5	0.1	0.3	2.7	4%
Other	2.0	3.2	0.3	0.5	0.4	0.5	6.9	10%
Total on-trip expenditure	**17.1**	**29.3**	**3.9**	**6.6**	**6.0**	**7.9**	**70.8**	**45%**
Off-trip expenditure								
Firearms, bows and other firearm equipment	11.4	13.6	2.3	2.5	0.5	0.7	31.1	36%
Ammunition	3.3	3.8	0.4	0.5	0.1	0.2	8.4	10%
Training	1.2	1.5	0.3	0.3	0.1	0.2	3.5	4%
Hunting club memberships	1.3	1.5	0.2	0.2	0.1	0.1	3.5	4%
Licences (game, firearm)	1.6	1.8	0.3	0.3	0.1	0.1	4.2	5%
Hunting dog expenses	0.3	0.5	0.1	0.1	0.4	0.5	1.9	2%
Vehicles/motorbikes/boats	4.4	5.1	0.9	1.0	0.6	0.7	12.6	15%
Vehicle/motorbike/boat maintenance	2.0	2.3	0.4	0.3	0.3	0.4	5.8	7%
Hunting equipment	4.1	4.3	0.8	0.9	0.3	0.4	10.7	13%
Other	1.4	1.5	0.3	0.3	0.1	0.2	3.9	5%
Total off-trip expenditure	**31.0**	**35.8**	**6.0**	**6.5**	**2.7**	**3.6**	**85.6**	**55%**
Total expenditure	**48.0**	**65.2**	**9.9**	**13.1**	**8.7**	**11.5**	**156.3**	

Table A3-2: Expenditure by region $m

REGION	FIREARM PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL	%
Albury City	0.5	1.2	0.1	0.2	0.2	0.1	2.3	2%
Armidale Regional	0.4	1.1	0.1	0.1	0.0	0.6	2.4	2%
Bathurst Regional	0.9	1.3	0.2	0.2	0.4	0.6	3.5	3%
Bega Valley	1.0	0.5	0.1	0.1	0.8	0.0	2.5	2%
Campbelltown	0.4	0.5	0.0	0.1	0.0	0.0	1.0	1%
Central Coast	0.9	0.9	0.2	0.3	0.1	0.1	2.5	2%
Clarence Valley	0.5	0.7	0.0	0.0	0.1	0.1	1.5	1%
Coffs Harbour	0.5	0.7	0.1	0.1	0.0	0.1	1.4	1%
Cowra	0.2	0.4	0.0	0.1	0.1	0.1	0.9	1%
Dubbo Regional	0.4	1.7	0.0	0.1	0.2	0.3	2.7	2%
Eurobodalla	0.5	0.4	0.2	0.0	0.0	0.0	1.1	1%
Federation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0%
Forbes	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0%
Glen Innes Severn	0.2	0.3	0.1	0.1	0.0	0.0	0.7	1%
Goulburn Mulwaree	0.3	0.9	0.1	0.4	0.4	0.3	2.5	2%
Greater Newcastle	4.3	5.0	0.7	1.1	0.3	0.4	11.8	8%
Greater Sydney	20.5	21.5	4.4	4.2	0.7	0.9	52.1	37%
Greater Wollongong	1.1	1.9	0.4	0.8	0.1	0.1	4.5	3%
Griffith	0.2	0.3	0.0	0.0	0.0	0.0	0.6	0%
Hay	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0%
Hilltops	0.1	0.2	0.0	0.0	0.0	0.0	0.4	0%
Inverell	0.2	0.3	0.1	0.1	0.0	0.3	0.9	1%
Kempsey	0.1	0.4	0.0	0.1	0.0	0.0	0.7	0%
Lismore	0.5	0.7	0.0	0.0	0.0	0.0	1.3	1%
Lithgow City	0.7	0.8	0.1	0.1	0.2	0.2	2.0	1%
Liverpool Plains	0.1	0.4	0.2	0.3	0.0	0.3	1.3	1%
Mid-Coast	0.3	0.5	0.1	0.2	0.1	0.1	1.3	1%

REGION	FIREARM PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL	%
Mid-Western Regional	0.3	0.9	0.0	0.2	0.2	0.2	1.8	1%
Muswellbrook	0.2	1.7	0.1	0.3	0.0	1.2	3.5	2%
Oberon	1.4	0.5	0.1	0.0	0.4	0.2	2.7	2%
Orange	0.6	2.1	0.1	0.1	0.8	0.5	4.3	3%
Parkes	0.0	0.3	0.0	0.0	0.0	0.1	0.4	0%
Port Macquarie-Hastings	0.2	0.3	0.0	0.1	0.0	0.0	0.7	0%
Queanbeyan-Palerang Regional	1.0	1.4	0.3	0.4	0.2	0.2	3.5	2%
Richmond Valley	0.2	0.2	0.0	0.0	0.1	0.1	0.5	0%
Shoalhaven	1.2	1.4	0.2	0.5	0.1	0.1	3.4	2%
Snowy Monaro Regional	1.1	1.4	0.2	0.3	0.6	0.1	3.8	3%
Snowy Valleys	1.3	0.6	0.3	0.1	0.3	0.3	2.9	2%
Tamworth Regional	1.3	2.3	0.3	0.4	0.5	0.5	5.3	4%
Tweed	0.2	0.2	0.0	0.1	0.1	0.1	0.6	0%
Upper Hunter	0.1	0.9	0.1	0.4	0.0	0.2	1.7	1%
Wagga Wagga	0.6	0.9	0.1	0.2	0.2	0.1	2.2	2%
Warrumbungle	0.1	0.4	0.1	0.3	0.2	0.5	1.6	1%
43 region sub-total	44.6	58.0	9.3	12.2	7.7	9.3	141.1	90%
Other a	3.5	7.2	0.6	0.9	1.0	2.1	15.3	10%
NSW Total	48.0	65.2	9.9	13.1	8.7	11.5	156.3	

(a) Other LGAs and unincorporated areas in NSW

NSW EXPENDITURE – HUNTERS WITHOUT GAME HUNTING LICENCES

Table A3-3: : Expenditure by on and off-trip item $m

	FIREARMS PRIVATE LAND	BOWS PRIVATE LAND	DOGS PRIVATE LAND	TOTAL	%
On-trip expenditure					
Fuel	16.6	1.6	3.3	21.4	26%
Groceries	10.2	0.8	1.8	12.8	15%
Ammunition	11.0	0.2	0.8	12.1	15%
Hunting equipment	5.9	0.7	1.3	7.9	10%
Takeaways & restaurant meals	4.0	0.4	0.8	5.2	6%
Accommodation	2.3	0.2	0.3	2.8	3%
Vehicle/motorbike/boat repairs	6.7	0.4	2.0	9.1	11%
Fees to landowners	1.4	0.6	0.2	2.2	3%
Other	7.1	0.3	2.0	9.4	11%
Total on-trip expenditure	**65.2**	**5.3**	**12.4**	**82.9**	**19%**
Off-trip expenditure					
Firearms, bows and other firearm equipment	117.7	14.7	1.4	133.8	37%
Ammunition	51.2	2.5	0.7	54.5	15%
Training	14.8	2.2	0.4	17.4	5%
Hunting club memberships	13.2	1.9	0.5	15.6	4%
Licences (game, firearm)	15.8	1.3	0.5	17.6	5%
Hunting dog expenses	3.2	0.1	1.3	4.5	1%
Vehicles/motorbikes/boats	41.2	9.5	1.7	52.4	14%
Vehicle/motorbike/boat maintenance	18.2	2.9	0.8	21.9	6%
Hunting equipment	31.3	3.2	0.7	35.2	10%
Other	8.3	0.8	0.3	9.4	3%
Total off-trip expenditure	**314.9**	**39.1**	**8.3**	**362.3**	**81%**
Total expenditure	**380.1**	**44.4**	**20.7**	**445.2**	

Table A3-4: Expenditure by region $m

REGION	FIREARMS PRIVATE LAND	BOWS PRIVATE LAND	DOGS PRIVATE LAND	TOTAL	%
Albury City	8.1	1.4	0.0	9.5	2%
Armidale Regional	2.2	0.1	0.3	2.6	1%
Bathurst Regional	7.9	1.0	0.2	9.1	2%
Bega Valley	3.2	0.0	0.0	3.2	1%
Campbelltown	1.1	0.1	0.0	1.2	0%
Central Coast	19.3	0.1	0.1	19.5	5%
Clarence Valley	10.6	2.1	0.2	12.9	3%
Coffs Harbour	5.0	0.2	0.1	5.3	1%
Cowra	2.0	1.3	0.1	3.4	1%
Dubbo Regional	9.0	0.2	0.6	9.8	2%
Eurobodalla	2.2	1.5	0.0	3.8	1%
Federation	1.3	0.0	0.8	2.2	1%
Forbes	3.4	0.0	0.1	3.6	1%
Glen Innes Severn	1.2	1.1	0.0	2.3	1%
Goulburn Mulwaree	3.6	0.9	0.0	4.6	1%
Greater Newcastle	40.5	2.2	0.9	43.5	10%
Greater Sydney	155.7	18.6	3.9	178.2	43%
Greater Wollongong	3.1	0.6	0.0	3.8	1%
Griffith	1.9	0.1	0.2	2.2	1%
Hay	1.7	0.0	1.3	3.0	1%
Hilltops	5.1	0.0	0.1	5.2	1%
Inverell	1.0	0.0	0.4	1.4	0%
Kempsey	1.4	0.0	0.0	1.5	0%
Lismore	1.5	0.4	0.2	2.1	1%
Lithgow City	0.4	0.1	0.0	0.5	0%
Liverpool Plains	0.5	0.1	0.3	0.9	0%
Mid-Coast	3.9	0.1	0.1	4.1	1%

REGION	FIREARMS PRIVATE LAND	BOWS PRIVATE LAND	DOGS PRIVATE LAND	TOTAL	%
Mid-Western Regional	1.9	0.1	0.2	2.2	1%
Muswellbrook	1.6	0.0	0.1	1.6	0%
Oberon	0.2	0.1	0.0	0.3	0%
Orange	5.2	0.1	0.0	5.3	1%
Parkes	1.6	0.0	0.1	1.7	0%
Port Macquarie-Hastings	13.3	5.1	0.0	18.5	4%
Queanbeyan-Palerang Regional	4.1	1.5	0.1	5.7	1%
Richmond Valley	1.6	0.0	0.5	2.2	1%
Shoalhaven	4.4	0.1	0.0	4.5	1%
Snowy Monaro Regional	3.8	0.1	0.0	3.9	1%
Snowy Valleys	0.1	0.5	0.0	0.6	0%
Tamworth Regional	16.8	1.8	2.2	20.8	5%
Tweed	0.9	0.4	0.0	1.4	0%
Upper Hunter	1.2	0.5	2.8	4.5	1%
Wagga Wagga	4.3	0.0	0.0	4.3	1%
Warrumbungle	1.6	0.1	0.3	1.9	0%
43 region sub-total	359.6	42.2	16.8	418.6	94%
Other a	20.6	2.2	3.9	26.6	6%
NSW Total	380.1	44.4	20.7	445.2	
					(a) see previous footnote

ALL NSW EXPENDITURE – WITH AND WITHOUT GAME HUNTING LICENCES

Table A3-5: Expenditure by on and off-trip item $m

	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL	%
On-trip expenditure								
Fuel	4.3	23.3	0.9	3.2	2.1	6.0	39.8	26%
Groceries	2.8	14.2	0.5	1.7	1.0	2.9	23.2	15%
Ammunition	1.2	14.7	0.2	0.6	0.3	1.6	18.6	12%
Hunting equipment	2.3	9.8	0.7	1.9	0.7	2.0	17.4	11%
Takeaways & restaurant meals	1.3	5.9	0.2	0.8	0.4	1.3	9.9	6%
Accommodation	1.3	3.8	0.2	0.5	0.3	0.5	6.7	4%
Vehicle/motorbike/boat repairs	1.5	9.9	0.6	1.1	0.6	3.0	16.8	11%
Fees to landowners	0.4	2.6	0.2	1.1	0.1	0.5	4.9	3%
Other	2.0	10.3	0.3	0.9	0.4	2.5	16.3	11%
Total on-trip expenditure	**17.1**	**94.6**	**3.9**	**11.9**	**6.0**	**20.3**	**153.7**	**26%**
Off-trip expenditure								
Firearms, bows and other firearm equipment	11.4	131.3	2.3	17.2	0.5	2.1	164.9	37%
Ammunition	3.3	55.0	0.4	3.1	0.1	1.0	62.9	14%
Training	1.2	16.2	0.3	2.5	0.1	0.5	20.8	5%
Hunting club memberships	1.3	14.6	0.2	2.1	0.1	0.7	19.1	4%
Licences (game, firearm)	1.6	17.7	0.3	1.6	0.1	0.6	21.8	5%
Hunting dog expenses	0.3	3.6	0.1	0.2	0.4	1.8	6.4	1%
Vehicles/motorbikes/boats	4.4	46.3	0.9	10.5	0.6	2.4	65.1	15%
Vehicle/motorbike/boat maintenance	2.0	20.5	0.4	3.3	0.3	1.2	27.7	6%
Hunting equipment	4.1	35.6	0.8	4.0	0.3	1.1	45.9	10%
Other	1.4	9.8	0.3	1.2	0.1	0.5	13.3	3%
Total off-trip expenditure	**31.0**	**350.7**	**6.0**	**45.6**	**2.7**	**11.9**	**447.9**	**74%**
Total expenditure	**48.0**	**445.3**	**9.9**	**57.5**	**8.7**	**32.2**	**601.6**	

Table A3-6: Expenditure by region $m

REGION	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL	%
Albury City	0.5	9.3	0.1	1.6	0.2	0.1	11.8	2%
Armidale Regional	0.4	3.3	0.1	0.2	0.0	0.9	5.0	1%
Bathurst Regional	0.9	9.1	0.2	1.2	0.4	0.8	12.6	2%
Bega Valley	1.0	3.7	0.1	0.1	0.8	0.0	5.7	1%
Campbelltown	0.4	1.5	0.0	0.2	0.0	0.0	2.2	0%
Central Coast	0.9	20.1	0.2	0.4	0.1	0.3	22.0	4%
Clarence Valley	0.5	11.3	0.0	2.1	0.1	0.4	14.4	3%
Coffs Harbour	0.5	5.7	0.1	0.3	0.0	0.2	6.7	1%
Cowra	0.2	2.4	0.0	1.3	0.1	0.3	4.3	1%
Dubbo Regional	0.4	10.7	0.0	0.2	0.2	1.0	12.5	2%
Eurobodalla	0.5	2.6	0.2	1.6	0.0	0.0	4.9	1%
Federation	0.0	1.4	0.0	0.0	0.0	0.8	2.2	0%
Forbes	0.1	3.5	0.0	0.0	0.0	0.1	3.7	1%
Glen Innes Severn	0.2	1.4	0.1	1.2	0.0	0.1	3.0	1%
Goulburn Mulwaree	0.3	4.5	0.1	1.3	0.4	0.4	7.0	1%
Greater Newcastle	4.3	45.5	0.7	3.3	0.3	1.2	55.3	10%
Greater Sydney	20.5	177.2	4.4	22.7	0.7	4.9	230.3	41%
Greater Wollongong	1.1	5.1	0.4	1.4	0.1	0.2	8.3	1%
Griffith	0.2	2.2	0.0	0.2	0.0	0.2	2.8	0%
Hay	0.0	1.9	0.0	0.0	0.0	1.3	3.3	1%
Hilltops	0.1	5.3	0.0	0.0	0.0	0.1	5.6	1%
Inverell	0.2	1.2	0.1	0.1	0.0	0.7	2.3	0%
Kempsey	0.1	1.9	0.0	0.1	0.0	0.0	2.2	0%
Lismore	0.5	2.2	0.0	0.4	0.0	0.3	3.4	1%
Lithgow City	0.7	1.1	0.1	0.2	0.2	0.3	2.5	0%
Liverpool Plains	0.1	0.8	0.2	0.4	0.0	0.7	2.1	0%
Mid-Coast	0.3	4.4	0.1	0.3	0.1	0.2	5.4	1%
Mid-Western Regional	0.3	2.7	0.0	0.3	0.2	0.5	4.0	1%

REGION	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL	%
Muswellbrook	0.2	3.2	0.1	0.3	0.0	1.2	5.1	1%
Oberon	1.4	0.8	0.1	0.1	0.4	0.2	3.0	1%
Orange	0.6	7.3	0.1	0.2	0.8	0.6	9.6	2%
Parkes	0.0	1.9	0.0	0.0	0.0	0.2	2.2	0%
Port Macquarie-Hastings	0.2	13.6	0.0	5.2	0.0	0.1	19.2	3%
Queanbeyan-Palerang Regional	1.0	5.5	0.3	1.9	0.2	0.3	9.1	2%
Richmond Valley	0.2	1.9	0.0	0.0	0.1	0.6	2.7	0%
Shoalhaven	1.2	5.8	0.2	0.5	0.1	0.1	7.9	1%
Snowy Monaro Regional	1.1	5.2	0.2	0.3	0.6	0.1	7.7	1%
Snowy Valleys	1.3	0.7	0.3	0.6	0.3	0.3	3.5	1%
Tamworth Regional	1.3	19.1	0.3	2.2	0.5	2.7	26.1	5%
Tweed	0.2	1.2	0.0	0.5	0.1	0.1	2.0	0%
Upper Hunter	0.1	2.0	0.1	0.9	0.0	3.0	6.2	1%
Wagga Wagga	0.6	5.2	0.1	0.2	0.2	0.1	6.5	1%
Warrumbungle	0.1	2.0	0.1	0.4	0.2	0.8	3.6	1%
43 region sub-total	**44.6**	**417.5**	**9.3**	**54.5**	**7.7**	**26.2**	**559.7**	93%
Other [a]	3.5	27.8	0.6	3.0	1.0	6.0	41.9	7%
NSW Total	**48.0**	**445.3**	**9.9**	**57.5**	**8.7**	**32.2**	**601.6**	
(a) Other LGAs and unincorporated areas in NSW								

Appendix 4: Detailed modelling results – Gross State Product $m

NSW GROSS STATE PRODUCT $M – FIREARMS

Table A4-1:With Game hunting licences GSP $m (firearms)

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Albury City	0.2	0.2	0.3	0.3	0.4	0.7
Armidale Regional	0.1	0.1	0.2	0.3	0.3	0.6
Bathurst Regional	0.2	0.2	0.5	0.4	0.3	0.7
Bega Valley	0.3	0.3	0.5	0.1	0.1	0.3
Campbelltown	0.1	0.1	0.2	0.1	0.1	0.2
Central Coast	0.2	0.2	0.5	0.2	0.2	0.4
Clarence Valley	0.2	0.1	0.3	0.2	0.2	0.4
Coffs Harbour	0.1	0.1	0.3	0.2	0.2	0.4
Cowra	0.0	0.0	0.1	0.1	0.1	0.2
Dubbo Regional	0.1	0.1	0.2	0.4	0.4	0.8
Eurobodalla	0.1	0.1	0.3	0.1	0.1	0.2
Federation	0.0	0.0	0.0	0.0	0.0	0.0
Forbes	0.0	0.0	0.0	0.0	0.0	0.0
Glen Innes Severn	0.0	0.0	0.1	0.1	0.1	0.1
Goulburn Mulwaree	0.1	0.1	0.2	0.2	0.2	0.5
Greater Newcastle	1.4	1.5	2.9	1.7	1.8	3.5
Greater Sydney	7.0	10.1	17.1	7.3	10.6	17.9
Greater Wollongong	0.3	0.3	0.7	0.7	0.7	1.3
Griffith	0.1	0.1	0.1	0.1	0.1	0.2
Hay	0.0	0.0	0.0	0.0	0.0	0.1
Hilltops	0.0	0.0	0.0	0.1	0.0	0.1
Inverell	0.0	0.0	0.1	0.1	0.0	0.1
Kempsey	0.0	0.0	0.1	0.1	0.1	0.2
Lismore	0.2	0.2	0.4	0.2	0.2	0.4
Lithgow City	0.2	0.1	0.3	0.2	0.1	0.3
Liverpool Plains	0.0	0.0	0.0	0.1	0.1	0.1

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Mid-Coast	0.1	0.1	0.1	0.1	0.1	0.2
Mid-Western Regional	0.1	0.1	0.1	0.2	0.1	0.4
Muswellbrook	0.0	0.0	0.1	0.3	0.1	0.5
Oberon	0.3	0.1	0.5	0.1	0.1	0.2
Orange	0.2	0.2	0.3	0.7	0.6	1.3
Parkes	0.0	0.0	0.0	0.1	0.1	0.2
Port Macquarie-Hastings	0.1	0.1	0.1	0.1	0.1	0.2
Queanbeyan-Palerang Regional	0.3	0.2	0.5	0.4	0.3	0.7
Richmond Valley	0.1	0.0	0.1	0.1	0.0	0.1
Shoalhaven	0.4	0.3	0.7	0.4	0.4	0.8
Snowy Monaro Regional	0.3	0.1	0.4	0.4	0.2	0.6
Snowy Valleys	0.3	0.1	0.4	0.1	0.1	0.2
Tamworth Regional	0.4	0.4	0.7	0.6	0.6	1.2
Tweed	0.0	0.0	0.1	0.1	0.1	0.1
Upper Hunter	0.0	0.0	0.1	0.3	0.2	0.5
Wagga Wagga	0.2	0.2	0.4	0.3	0.3	0.5
Warrumbungle	0.0	0.0	0.0	0.1	0.1	0.2
43 region sub-total	**13.9**	**16.1**	**30.0**	**17.7**	**19.7**	**37.4**
Rest of NSW	0.9	1.2	2.1	1.9	2.6	4.5
Inter-regional trade [a]	0.8	8.0	8.8	1.4	11.8	13.2
NSW Total	**15.6**	**25.3**	**40.9**	**21.0**	**34.1**	**55.2**

(a) Contribution to GSP in NSW arising from trade between regions within NSW.

Table A4-2: Without Game hunting licences GSP $m (firearms)

REGION	PRIVATE LAND		
	Direct	Flow-on	Total
Albury City	2.2	2.2	4.4
Armidale Regional	0.6	0.5	1.1
Bathurst Regional	2.5	2.1	4.6
Bega Valley	1.2	1.1	2.3
Campbelltown	0.4	0.3	0.7
Central Coast	5.1	4.9	10.0
Clarence Valley	3.3	2.7	6.0
Coffs Harbour	2.0	2.0	4.0
Cowra	0.5	0.3	0.8
Dubbo Regional	2.5	2.2	4.7
Eurobodalla	1.1	0.8	1.9
Federation	0.4	0.3	0.7
Forbes	1.2	0.9	2.2
Glen Innes Severn	0.3	0.3	0.6
Goulburn Mulwaree	1.0	0.9	1.9
Greater Newcastle	12.5	13.0	25.5
Greater Sydney	55.2	79.1	134.3
Greater Wollongong	1.0	0.9	1.8
Griffith	0.5	0.4	0.9
Hay	0.5	0.4	0.8
Hilltops	0.8	0.7	1.4
Inverell	0.3	0.2	0.5
Kempsey	0.2	0.2	0.4
Lismore	0.4	0.4	0.8
Lithgow City	0.1	0.0	0.1
Liverpool Plains	0.1	0.0	0.1
Mid-Coast	1.3	0.9	2.3
Mid-Western Regional	0.5	0.3	0.8
Muswellbrook	0.2	0.1	0.3

REGION	PRIVATE LAND		
	Direct	Flow-on	Total
Oberon	0.0	0.0	0.1
Orange	1.4	1.2	2.6
Parkes	0.4	0.3	0.8
Port Macquarie-Hastings	3.3	2.9	6.2
Queanbeyan-Palerang Regional	1.2	0.9	2.1
Richmond Valley	0.5	0.3	0.8
Shoalhaven	1.3	1.1	2.4
Snowy Monaro Regional	1.0	0.5	1.5
Snowy Valleys	0.0	0.0	0.0
Tamworth Regional	4.7	4.5	9.2
Tweed	0.4	0.4	0.8
Upper Hunter	0.3	0.2	0.5
Wagga Wagga	1.0	1.1	2.1
Warrumbungle	0.4	0.2	0.6
43 region sub-total	**113.7**	**132.0**	**245.7**
Rest of NSW	5.6	7.4	13.0
Inter-regional trade [a]	6.1	58.3	64.4
NSW Total	**125.3**	**197.8**	**323.1**
(a) see previous footnote			

Table A4-3: With and Without Game hunting licences GSP $m (firearms)

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Albury City	0.2	0.2	0.3	2.5	2.6	5.1
Armidale Regional	0.1	0.1	0.2	0.8	0.8	1.7
Bathurst Regional	0.2	0.2	0.5	2.9	2.4	5.3
Bega Valley	0.3	0.3	0.5	1.3	1.3	2.6
Campbelltown	0.1	0.1	0.2	0.5	0.5	0.9
Central Coast	0.2	0.2	0.5	5.3	5.1	10.4
Clarence Valley	0.2	0.1	0.3	3.5	2.9	6.4
Coffs Harbour	0.1	0.1	0.3	2.2	2.2	4.4
Cowra	0.0	0.0	0.1	0.6	0.4	1.0
Dubbo Regional	0.1	0.1	0.2	2.9	2.6	5.5
Eurobodalla	0.1	0.1	0.3	1.2	0.8	2.1
Federation	0.0	0.0	0.0	0.4	0.3	0.7
Forbes	0.0	0.0	0.0	1.2	1.0	2.2
Glen Innes Severn	0.0	0.0	0.1	0.4	0.4	0.7
Goulburn Mulwaree	0.1	0.1	0.2	1.2	1.2	2.4
Greater Newcastle	1.4	1.5	2.9	14.2	14.7	29.0
Greater Sydney	7.0	10.1	17.1	62.5	89.7	152.2
Greater Wollongong	0.3	0.3	0.7	1.6	1.5	3.2
Griffith	0.1	0.1	0.1	0.6	0.5	1.1
Hay	0.0	0.0	0.0	0.5	0.4	0.9
Hilltops	0.0	0.0	0.0	0.8	0.7	1.5
Inverell	0.0	0.0	0.1	0.3	0.3	0.6
Kempsey	0.0	0.0	0.1	0.4	0.3	0.6
Lismore	0.2	0.2	0.4	0.6	0.6	1.3
Lithgow City	0.2	0.1	0.3	0.3	0.2	0.4
Liverpool Plains	0.0	0.0	0.0	0.1	0.1	0.2
Mid-Coast	0.1	0.1	0.1	1.5	1.0	2.5
Mid-Western Regional	0.1	0.1	0.1	0.7	0.5	1.1
Muswellbrook	0.0	0.0	0.1	0.5	0.3	0.8

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Oberon	0.3	0.1	0.5	0.2	0.1	0.3
Orange	0.2	0.2	0.3	2.0	1.8	3.9
Parkes	0.0	0.0	0.0	0.5	0.4	0.9
Port Macquarie-Hastings	0.1	0.1	0.1	3.4	3.0	6.4
Queanbeyan-Palerang Regional	0.3	0.2	0.5	1.6	1.2	2.8
Richmond Valley	0.1	0.0	0.1	0.5	0.3	0.9
Shoalhaven	0.4	0.3	0.7	1.7	1.5	3.2
Snowy Monaro Regional	0.3	0.1	0.4	1.4	0.7	2.0
Snowy Valleys	0.3	0.1	0.4	0.2	0.1	0.3
Tamworth Regional	0.4	0.4	0.7	5.3	5.1	10.4
Tweed	0.0	0.0	0.1	0.4	0.5	0.9
Upper Hunter	0.0	0.0	0.1	0.6	0.4	1.0
Wagga Wagga	0.2	0.2	0.4	1.3	1.4	2.7
Warrumbungle	0.0	0.0	0.0	0.5	0.3	0.8
43 region sub-total	**13.9**	**16.1**	**30.0**	**131.4**	**151.7**	**283.1**
Rest of NSW	0.9	1.2	2.1	7.5	10.0	17.5
Inter-regional trade [a]	0.8	8.0	8.8	7.5	70.2	77.6
NSW Total	**15.6**	**25.3**	**40.9**	**146.4**	**231.9**	**378.3**
(a) see previous footnote						

NSW GROSS STATE PRODUCT $M – BOWS

Table A4-4: With Game hunting licences GSP $m (bows)

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Albury City	0.0	0.0	0.1	0.1	0.1	0.1
Armidale Regional	0.0	0.0	0.1	0.0	0.0	0.1
Bathurst Regional	0.1	0.0	0.1	0.1	0.1	0.1
Bega Valley	0.0	0.0	0.1	0.0	0.0	0.0
Campbelltown	0.0	0.0	0.0	0.0	0.0	0.0
Central Coast	0.1	0.1	0.1	0.1	0.1	0.1
Clarence Valley	0.0	0.0	0.0	0.0	0.0	0.0
Coffs Harbour	0.0	0.0	0.1	0.0	0.0	0.1
Cowra	0.0	0.0	0.0	0.0	0.0	0.0
Dubbo Regional	0.0	0.0	0.0	0.0	0.0	0.0
Eurobodalla	0.0	0.0	0.1	0.0	0.0	0.0
Federation	0.0	0.0	0.0	0.0	0.0	0.0
Forbes	0.0	0.0	0.0	0.0	0.0	0.0
Glen Innes Severn	0.0	0.0	0.0	0.0	0.0	0.1
Goulburn Mulwaree	0.0	0.0	0.1	0.1	0.1	0.2
Greater Newcastle	0.2	0.2	0.5	0.4	0.4	0.8
Greater Sydney	1.5	2.2	3.7	1.4	2.0	3.4
Greater Wollongong	0.1	0.1	0.3	0.2	0.2	0.4
Griffith	0.0	0.0	0.0	0.0	0.0	0.0
Hay	0.0	0.0	0.0	0.0	0.0	0.0
Hilltops	0.0	0.0	0.0	0.0	0.0	0.0
Inverell	0.0	0.0	0.0	0.0	0.0	0.0
Kempsey	0.0	0.0	0.0	0.0	0.0	0.0
Lismore	0.0	0.0	0.0	0.0	0.0	0.0
Lithgow City	0.0	0.0	0.0	0.0	0.0	0.0
Liverpool Plains	0.0	0.0	0.1	0.1	0.1	0.2
Mid-Coast	0.0	0.0	0.0	0.1	0.0	0.1

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Mid-Western Regional	0.0	0.0	0.0	0.1	0.0	0.1
Muswellbrook	0.0	0.0	0.0	0.1	0.0	0.1
Oberon	0.0	0.0	0.0	0.0	0.0	0.0
Orange	0.0	0.0	0.1	0.0	0.0	0.1
Parkes	0.0	0.0	0.0	0.0	0.0	0.0
Port Macquarie-Hastings	0.0	0.0	0.0	0.0	0.0	0.0
Queanbeyan-Palerang Regional	0.1	0.1	0.1	0.1	0.1	0.2
Richmond Valley	0.0	0.0	0.0	0.0	0.0	0.0
Shoalhaven	0.1	0.1	0.1	0.1	0.1	0.3
Snowy Monaro Regional	0.1	0.0	0.1	0.1	0.0	0.1
Snowy Valleys	0.1	0.0	0.1	0.0	0.0	0.0
Tamworth Regional	0.1	0.1	0.2	0.1	0.1	0.2
Tweed	0.0	0.0	0.0	0.0	0.0	0.0
Upper Hunter	0.0	0.0	0.0	0.1	0.1	0.2
Wagga Wagga	0.0	0.0	0.1	0.0	0.0	0.1
Warrumbungle	0.0	0.0	0.0	0.1	0.1	0.1
43 region sub-total	**3.0**	**3.4**	**6.4**	**3.7**	**3.9**	**7.6**
Rest of NSW	0.2	0.2	0.4	0.2	0.3	0.6
Inter-regional trade [a]	0.2	1.7	1.8	0.3	2.5	2.8
NSW Total	**3.3**	**5.3**	**8.6**	**4.2**	**6.8**	**11.0**
(a) see previous footnote						

Table A4-5: Without Game hunting licences GSP $m (bows)

REGION	PRIVATE LAND		
	Direct	Flow-on	Total
Albury City	0.4	0.4	0.8
Armidale Regional	0.0	0.0	0.0
Bathurst Regional	0.5	0.4	0.9
Bega Valley	0.0	0.0	0.0
Campbelltown	0.0	0.0	0.1
Central Coast	0.0	0.0	0.0
Clarence Valley	0.8	0.6	1.4
Coffs Harbour	0.1	0.0	0.1
Cowra	0.3	0.2	0.6
Dubbo Regional	0.1	0.1	0.1
Eurobodalla	0.8	0.5	1.3
Federation	0.0	0.0	0.0
Forbes	0.0	0.0	0.0
Glen Innes Severn	0.4	0.3	0.7
Goulburn Mulwaree	0.2	0.2	0.4
Greater Newcastle	0.6	0.6	1.2
Greater Sydney	5.7	8.4	14.1
Greater Wollongong	0.1	0.1	0.2
Griffith	0.0	0.0	0.1
Hay	0.0	0.0	0.0
Hilltops	0.0	0.0	0.0
Inverell	0.0	0.0	0.0
Kempsey	0.0	0.0	0.0
Lismore	0.1	0.1	0.2
Lithgow City	0.0	0.0	0.0
Liverpool Plains	0.0	0.0	0.0
Mid-Coast	0.0	0.0	0.1
Mid-Western Regional	0.0	0.0	0.0
Muswellbrook	0.0	0.0	0.0

REGION	PRIVATE LAND		
	Direct	Flow-on	Total
Oberon	0.0	0.0	0.0
Orange	0.0	0.0	0.1
Parkes	0.0	0.0	0.0
Port Macquarie-Hastings	1.2	1.0	2.2
Queanbeyan-Palerang Regional	0.4	0.3	0.7
Richmond Valley	0.0	0.0	0.0
Shoalhaven	0.0	0.0	0.0
Snowy Monaro Regional	0.0	0.0	0.0
Snowy Valleys	0.1	0.0	0.2
Tamworth Regional	0.5	0.5	1.0
Tweed	0.2	0.2	0.3
Upper Hunter	0.2	0.1	0.3
Wagga Wagga	0.0	0.0	0.0
Warrumbungle	0.0	0.0	0.0
43 region sub-total	**12.8**	**14.3**	**27.1**
Rest of NSW	0.6	0.8	1.4
Inter-regional trade [a]	0.7	7.1	7.8
NSW Total	**14.1**	**22.3**	**36.3**
(a) see previous footnote			

Table A4-6: With and Without Game hunting licences GSP $m (bows)

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Albury City	0.0	0.0	0.1	0.4	0.4	0.9
Armidale Regional	0.0	0.0	0.1	0.1	0.1	0.1
Bathurst Regional	0.1	0.0	0.1	0.5	0.4	1.0
Bega Valley	0.0	0.0	0.1	0.0	0.0	0.0
Campbelltown	0.0	0.0	0.0	0.1	0.0	0.1
Central Coast	0.1	0.1	0.1	0.1	0.1	0.2
Clarence Valley	0.0	0.0	0.0	0.8	0.6	1.4
Coffs Harbour	0.0	0.0	0.1	0.1	0.1	0.2
Cowra	0.0	0.0	0.0	0.4	0.2	0.6
Dubbo Regional	0.0	0.0	0.0	0.1	0.1	0.1
Eurobodalla	0.0	0.0	0.1	0.8	0.5	1.3
Federation	0.0	0.0	0.0	0.0	0.0	0.0
Forbes	0.0	0.0	0.0	0.0	0.0	0.0
Glen Innes Severn	0.0	0.0	0.0	0.4	0.4	0.8
Goulburn Mulwaree	0.0	0.0	0.1	0.3	0.3	0.6
Greater Newcastle	0.2	0.2	0.5	1.0	1.0	2.0
Greater Sydney	1.5	2.2	3.7	7.1	10.4	17.5
Greater Wollongong	0.1	0.1	0.3	0.3	0.3	0.6
Griffith	0.0	0.0	0.0	0.0	0.0	0.1
Hay	0.0	0.0	0.0	0.0	0.0	0.0
Hilltops	0.0	0.0	0.0	0.0	0.0	0.0
Inverell	0.0	0.0	0.0	0.0	0.0	0.0
Kempsey	0.0	0.0	0.0	0.0	0.0	0.0
Lismore	0.0	0.0	0.0	0.1	0.1	0.2
Lithgow City	0.0	0.0	0.0	0.0	0.0	0.1
Liverpool Plains	0.0	0.0	0.1	0.1	0.1	0.2
Mid-Coast	0.0	0.0	0.0	0.1	0.1	0.2

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Mid-Western Regional	0.0	0.0	0.0	0.1	0.1	0.1
Muswellbrook	0.0	0.0	0.0	0.1	0.0	0.1
Oberon	0.0	0.0	0.0	0.0	0.0	0.0
Orange	0.0	0.0	0.1	0.1	0.1	0.1
Parkes	0.0	0.0	0.0	0.0	0.0	0.0
Port Macquarie-Hastings	0.0	0.0	0.0	1.2	1.0	2.2
Queanbeyan-Palerang Regional	0.1	0.1	0.1	0.5	0.4	0.9
Richmond Valley	0.0	0.0	0.0	0.0	0.0	0.0
Shoalhaven	0.1	0.1	0.1	0.2	0.1	0.3
Snowy Monaro Regional	0.1	0.0	0.1	0.1	0.0	0.1
Snowy Valleys	0.1	0.0	0.1	0.2	0.1	0.2
Tamworth Regional	0.1	0.1	0.2	0.6	0.6	1.2
Tweed	0.0	0.0	0.0	0.2	0.2	0.4
Upper Hunter	0.0	0.0	0.0	0.3	0.2	0.5
Wagga Wagga	0.0	0.0	0.1	0.0	0.0	0.1
Warrumbungle	0.0	0.0	0.0	0.1	0.1	0.2
43 region sub-total	3.0	3.4	6.4	16.4	18.3	34.7
Rest of NSW	0.2	0.2	0.4	0.9	1.1	2.0
Inter-regional trade [a]	0.2	1.7	1.8	1.0	9.6	10.6
NSW Total	3.3	5.3	8.6	18.2	29.0	47.3

(a) see previous footnote

NSW GROSS STATE PRODUCT $M – DOGS

Table A4-7: With Game hunting licences GSP $m (dogs)

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Albury City	0.0	0.0	0.1	0.0	0.0	0.0
Armidale Regional	0.0	0.0	0.0	0.2	0.2	0.4
Bathurst Regional	0.1	0.1	0.2	0.2	0.1	0.3
Bega Valley	0.2	0.2	0.4	0.0	0.0	0.0
Campbelltown	0.0	0.0	0.0	0.0	0.0	0.0
Central Coast	0.0	0.0	0.1	0.0	0.0	0.1
Clarence Valley	0.0	0.0	0.0	0.0	0.0	0.1
Coffs Harbour	0.0	0.0	0.0	0.0	0.0	0.0
Cowra	0.0	0.0	0.0	0.0	0.0	0.0
Dubbo Regional	0.0	0.0	0.1	0.1	0.1	0.2
Eurobodalla	0.0	0.0	0.0	0.0	0.0	0.0
Federation	0.0	0.0	0.0	0.0	0.0	0.0
Forbes	0.0	0.0	0.0	0.0	0.0	0.0
Glen Innes Severn	0.0	0.0	0.0	0.0	0.0	0.0
Goulburn Mulwaree	0.1	0.1	0.2	0.1	0.1	0.2
Greater Newcastle	0.1	0.1	0.2	0.1	0.1	0.3
Greater Sydney	0.2	0.4	0.6	0.3	0.5	0.8
Greater Wollongong	0.0	0.0	0.1	0.0	0.0	0.1
Griffith	0.0	0.0	0.0	0.0	0.0	0.0
Hay	0.0	0.0	0.0	0.0	0.0	0.0
Hilltops	0.0	0.0	0.0	0.0	0.0	0.0
Inverell	0.0	0.0	0.0	0.1	0.1	0.2
Kempsey	0.0	0.0	0.0	0.0	0.0	0.0
Lismore	0.0	0.0	0.0	0.0	0.0	0.0
Lithgow City	0.0	0.0	0.1	0.1	0.0	0.1
Liverpool Plains	0.0	0.0	0.0	0.1	0.1	0.2

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Mid-Coast	0.0	0.0	0.1	0.0	0.0	0.1
Mid-Western Regional	0.0	0.0	0.1	0.1	0.0	0.1
Muswellbrook	0.0	0.0	0.0	0.2	0.1	0.3
Oberon	0.1	0.1	0.2	0.1	0.0	0.1
Orange	0.2	0.2	0.3	0.1	0.1	0.3
Parkes	0.0	0.0	0.0	0.0	0.0	0.0
Port Macquarie-Hastings	0.0	0.0	0.0	0.0	0.0	0.0
Queanbeyan-Palerang Regional	0.1	0.0	0.1	0.1	0.0	0.1
Richmond Valley	0.0	0.0	0.0	0.0	0.0	0.0
Shoalhaven	0.0	0.0	0.0	0.0	0.0	0.0
Snowy Monaro Regional	0.1	0.1	0.2	0.0	0.0	0.0
Snowy Valleys	0.1	0.0	0.1	0.1	0.0	0.1
Tamworth Regional	0.1	0.1	0.3	0.1	0.1	0.2
Tweed	0.0	0.0	0.0	0.0	0.0	0.0
Upper Hunter	0.0	0.0	0.0	0.0	0.0	0.1
Wagga Wagga	0.1	0.1	0.1	0.0	0.0	0.1
Warrumbungle	0.0	0.0	0.1	0.1	0.1	0.2
43 region sub-total	**2.0**	**1.9**	**3.9**	**2.6**	**2.2**	**4.8**
Rest of NSW	0.3	0.3	0.6	0.5	0.7	1.2
Inter-regional trade [a]	0.3	2.1	2.4	0.3	2.7	3.0
NSW Total	**2.6**	**4.3**	**6.9**	**3.4**	**5.7**	**9.0**
(a) see previous footnote						

Table A4-8: Without Game hunting licences GSP $m (dogs)

REGION	PRIVATE LAND		
	Direct	Flow-on	Total
Albury City	0.0	0.0	0.0
Armidale Regional	0.1	0.1	0.2
Bathurst Regional	0.0	0.0	0.1
Bega Valley	0.0	0.0	0.0
Campbelltown	0.0	0.0	0.0
Central Coast	0.0	0.0	0.1
Clarence Valley	0.1	0.1	0.1
Coffs Harbour	0.0	0.0	0.1
Cowra	0.0	0.0	0.0
Dubbo Regional	0.2	0.2	0.4
Eurobodalla	0.0	0.0	0.0
Federation	0.3	0.2	0.4
Forbes	0.0	0.0	0.1
Glen Innes Severn	0.0	0.0	0.0
Goulburn Mulwaree	0.0	0.0	0.0
Greater Newcastle	0.3	0.3	0.6
Greater Sydney	1.5	2.3	3.8
Greater Wollongong	0.0	0.0	0.0
Griffith	0.0	0.0	0.1
Hay	0.3	0.3	0.6
Hilltops	0.0	0.0	0.0
Inverell	0.1	0.1	0.2
Kempsey	0.0	0.0	0.0
Lismore	0.0	0.0	0.1
Lithgow City	0.0	0.0	0.0

REGION	PRIVATE LAND		
	Direct	Flow-on	Total
Liverpool Plains	0.0	0.0	0.1
Mid-Coast	0.0	0.0	0.0
Mid-Western Regional	0.1	0.1	0.1
Muswellbrook	0.0	0.0	0.0
Oberon	0.0	0.0	0.0
Orange	0.0	0.0	0.0
Parkes	0.0	0.0	0.0
Port Macquarie-Hastings	0.0	0.0	0.0
Queanbeyan-Palerang Regional	0.0	0.0	0.1
Richmond Valley	0.2	0.1	0.3
Shoalhaven	0.0	0.0	0.0
Snowy Monaro Regional	0.0	0.0	0.0
Snowy Valleys	0.0	0.0	0.0
Tamworth Regional	0.6	0.6	1.1
Tweed	0.0	0.0	0.0
Upper Hunter	0.8	0.5	1.3
Wagga Wagga	0.0	0.0	0.0
Warrumbungle	0.0	0.0	0.0
43 region sub-total	5.0	5.1	10.1
Rest of NSW	1.1	1.4	2.5
Inter-regional trade [a]	0.7	4.7	5.4
NSW Total	6.7	11.3	18.0
(a) see previous footnote			

Table A4-9: With and Without Game hunting licences GSP $m (dogs)

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Albury City	0.0	0.0	0.1	0.0	0.0	0.0
Armidale Regional	0.0	0.0	0.0	0.3	0.3	0.6
Bathurst Regional	0.1	0.1	0.2	0.2	0.2	0.4
Bega Valley	0.2	0.2	0.4	0.0	0.0	0.0
Campbelltown	0.0	0.0	0.0	0.0	0.0	0.0
Central Coast	0.0	0.0	0.1	0.1	0.1	0.1
Clarence Valley	0.0	0.0	0.0	0.1	0.1	0.2
Coffs Harbour	0.0	0.0	0.0	0.1	0.1	0.1
Cowra	0.0	0.0	0.0	0.0	0.0	0.1
Dubbo Regional	0.0	0.0	0.1	0.3	0.3	0.5
Eurobodalla	0.0	0.0	0.0	0.0	0.0	0.0
Federation	0.0	0.0	0.0	0.3	0.2	0.4
Forbes	0.0	0.0	0.0	0.0	0.0	0.1
Glen Innes Severn	0.0	0.0	0.0	0.0	0.0	0.0
Goulburn Mulwaree	0.1	0.1	0.2	0.1	0.1	0.2
Greater Newcastle	0.1	0.1	0.2	0.4	0.5	0.9
Greater Sydney	0.2	0.4	0.6	1.9	2.7	4.6
Greater Wollongong	0.0	0.0	0.1	0.1	0.1	0.1
Griffith	0.0	0.0	0.0	0.0	0.0	0.1
Hay	0.0	0.0	0.0	0.3	0.3	0.6
Hilltops	0.0	0.0	0.0	0.0	0.0	0.1
Inverell	0.0	0.0	0.0	0.2	0.1	0.3
Kempsey	0.0	0.0	0.0	0.0	0.0	0.0
Lismore	0.0	0.0	0.0	0.0	0.0	0.1
Lithgow City	0.0	0.0	0.1	0.1	0.0	0.1

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Liverpool Plains	0.0	0.0	0.0	0.1	0.1	0.2
Mid-Coast	0.0	0.0	0.1	0.1	0.0	0.1
Mid-Western Regional	0.0	0.0	0.1	0.1	0.1	0.2
Muswellbrook	0.0	0.0	0.0	0.2	0.1	0.3
Oberon	0.1	0.1	0.2	0.1	0.0	0.1
Orange	0.2	0.2	0.3	0.1	0.1	0.3
Parkes	0.0	0.0	0.0	0.0	0.0	0.1
Port Macquarie-Hastings	0.0	0.0	0.0	0.0	0.0	0.0
Queanbeyan-Palerang Regional	0.1	0.0	0.1	0.1	0.1	0.2
Richmond Valley	0.0	0.0	0.0	0.2	0.1	0.3
Shoalhaven	0.0	0.0	0.0	0.0	0.0	0.0
Snowy Monaro Regional	0.1	0.1	0.2	0.0	0.0	0.0
Snowy Valleys	0.1	0.0	0.1	0.1	0.0	0.1
Tamworth Regional	0.1	0.1	0.3	0.7	0.7	1.3
Tweed	0.0	0.0	0.0	0.0	0.0	0.0
Upper Hunter	0.0	0.0	0.0	0.8	0.5	1.3
Wagga Wagga	0.1	0.1	0.1	0.0	0.0	0.1
Warrumbungle	0.0	0.0	0.1	0.1	0.1	0.2
43 region sub-total	2.0	1.9	3.9	7.5	7.3	14.9
Rest of NSW	0.3	0.3	0.6	1.6	2.1	3.7
Inter-regional trade [a]	0.3	2.1	2.4	1.0	7.5	8.5
NSW Total	2.6	4.3	6.9	10.1	16.9	27.0

(a) see previous footnote

NSW GROSS STATE PRODUCT $M – ALL HUNTING METHODS

Table A4-10: With Game hunting licences GSP $m

REGION	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL
Albury City	0.3	0.7	0.1	0.1	0.1	0.0	1.3
Armidale Regional	0.2	0.6	0.1	0.1	0.0	0.4	1.3
Bathurst Regional	0.5	0.7	0.1	0.1	0.2	0.3	1.9
Bega Valley	0.5	0.3	0.1	0.0	0.4	0.0	1.3
Campbelltown	0.2	0.2	0.0	0.0	0.0	0.0	0.5
Central Coast	0.5	0.4	0.1	0.1	0.1	0.1	1.3
Clarence Valley	0.3	0.4	0.0	0.0	0.0	0.1	0.8
Coffs Harbour	0.3	0.4	0.1	0.1	0.0	0.0	0.9
Cowra	0.1	0.2	0.0	0.0	0.0	0.0	0.4
Dubbo Regional	0.2	0.8	0.0	0.0	0.1	0.2	1.3
Eurobodalla	0.3	0.2	0.1	0.0	0.0	0.0	0.6
Federation	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Forbes	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Glen Innes Severn	0.1	0.1	0.0	0.1	0.0	0.0	0.4
Goulburn Mulwaree	0.2	0.5	0.1	0.2	0.2	0.2	1.3
Greater Newcastle	2.9	3.5	0.5	0.8	0.2	0.3	8.1
Greater Sydney	17.1	17.9	3.7	3.4	0.6	0.8	43.5
Greater Wollongong	0.7	1.3	0.3	0.4	0.1	0.1	2.9
Griffith	0.1	0.2	0.0	0.0	0.0	0.0	0.3
Hay	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Hilltops	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Inverell	0.1	0.1	0.0	0.0	0.0	0.2	0.4
Kempsey	0.1	0.2	0.0	0.0	0.0	0.0	0.4
Lismore	0.4	0.4	0.0	0.0	0.0	0.0	0.9
Lithgow City	0.3	0.3	0.0	0.0	0.1	0.1	0.8

REGION	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL
Liverpool Plains	0.0	0.1	0.1	0.2	0.0	0.2	0.5
Mid-Coast	0.1	0.2	0.0	0.1	0.1	0.1	0.6
Mid-Western Regional	0.1	0.4	0.0	0.1	0.1	0.1	0.8
Muswellbrook	0.1	0.5	0.0	0.1	0.0	0.3	1.0
Oberon	0.5	0.2	0.0	0.0	0.2	0.1	1.0
Orange	0.3	1.3	0.1	0.1	0.3	0.3	2.3
Parkes	0.0	0.2	0.0	0.0	0.0	0.0	0.3
Port Macquarie-Hastings	0.1	0.2	0.0	0.0	0.0	0.0	0.4
Queanbeyan-Palerang Regional	0.5	0.7	0.1	0.2	0.1	0.1	1.7
Richmond Valley	0.1	0.1	0.0	0.0	0.0	0.0	0.3
Shoalhaven	0.7	0.8	0.1	0.3	0.0	0.0	1.9
Snowy Monaro Regional	0.4	0.6	0.1	0.1	0.2	0.0	1.4
Snowy Valleys	0.4	0.2	0.1	0.0	0.1	0.1	1.1
Tamworth Regional	0.7	1.2	0.2	0.2	0.3	0.2	2.8
Tweed	0.1	0.1	0.0	0.0	0.0	0.0	0.3
Upper Hunter	0.1	0.5	0.0	0.2	0.0	0.1	0.9
Wagga Wagga	0.4	0.5	0.1	0.1	0.1	0.1	1.3
Warrumbungle	0.0	0.2	0.0	0.1	0.1	0.2	0.6
43 region sub-total	30.0	37.4	6.4	7.6	3.9	4.8	90.1
Rest of NSW	2.1	4.5	0.4	0.6	0.6	1.2	9.3
Inter-regional trade [a]	8.8	13.2	1.8	2.8	2.4	3.0	32.1
NSW Total	40.9	55.2	8.6	11.0	6.9	9.0	131.5
							(a) see previous footnote

Table A4-11: <u>Without</u> Game hunting licences GSP $m

REGION	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL
Albury City	0.0	4.4	0.0	0.8	0.0	0.0	5.2
Armidale Regional	0.0	1.1	0.0	0.0	0.0	0.2	1.3
Bathurst Regional	0.0	4.6	0.0	0.9	0.0	0.1	5.6
Bega Valley	0.0	2.3	0.0	0.0	0.0	0.0	2.3
Campbelltown	0.0	0.7	0.0	0.1	0.0	0.0	0.8
Central Coast	0.0	10.0	0.0	0.0	0.0	0.1	10.1
Clarence Valley	0.0	6.0	0.0	1.4	0.0	0.1	7.5
Coffs Harbour	0.0	4.0	0.0	0.1	0.0	0.1	4.1
Cowra	0.0	0.8	0.0	0.6	0.0	0.0	1.4
Dubbo Regional	0.0	4.7	0.0	0.1	0.0	0.4	5.1
Eurobodalla	0.0	1.9	0.0	1.3	0.0	0.0	3.2
Federation	0.0	0.7	0.0	0.0	0.0	0.4	1.1
Forbes	0.0	2.2	0.0	0.0	0.0	0.1	2.2
Glen Innes Severn	0.0	0.6	0.0	0.7	0.0	0.0	1.3
Goulburn Mulwaree	0.0	1.9	0.0	0.4	0.0	0.0	2.3
Greater Newcastle	0.0	25.5	0.0	1.2	0.0	0.6	27.4
Greater Sydney	0.0	134.3	0.0	14.1	0.0	3.8	152.2
Greater Wollongong	0.0	1.8	0.0	0.2	0.0	0.0	2.0
Griffith	0.0	0.9	0.0	0.1	0.0	0.1	1.0
Hay	0.0	0.8	0.0	0.0	0.0	0.6	1.4
Hilltops	0.0	1.4	0.0	0.0	0.0	0.0	1.5
Inverell	0.0	0.5	0.0	0.0	0.0	0.2	0.6
Kempsey	0.0	0.4	0.0	0.0	0.0	0.0	0.4
Lismore	0.0	0.8	0.0	0.2	0.0	0.1	1.1
Lithgow City	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Liverpool Plains	0.0	0.1	0.0	0.0	0.0	0.1	0.2
Mid-Coast	0.0	2.3	0.0	0.1	0.0	0.0	2.4
Mid-Western Regional	0.0	0.8	0.0	0.0	0.0	0.1	1.0

REGION	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL
Muswellbrook	0.0	0.3	0.0	0.0	0.0	0.0	0.3
Oberon	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Orange	0.0	2.6	0.0	0.1	0.0	0.0	2.7
Parkes	0.0	0.8	0.0	0.0	0.0	0.0	0.8
Port Macquarie-Hastings	0.0	6.2	0.0	2.2	0.0	0.0	8.4
Queanbeyan-Palerang Regional	0.0	2.1	0.0	0.7	0.0	0.1	2.9
Richmond Valley	0.0	0.8	0.0	0.0	0.0	0.3	1.0
Shoalhaven	0.0	2.4	0.0	0.0	0.0	0.0	2.5
Snowy Monaro Regional	0.0	1.5	0.0	0.0	0.0	0.0	1.5
Snowy Valleys	0.0	0.0	0.0	0.2	0.0	0.0	0.2
Tamworth Regional	0.0	9.2	0.0	1.0	0.0	1.1	11.3
Tweed	0.0	0.8	0.0	0.3	0.0	0.0	1.1
Upper Hunter	0.0	0.5	0.0	0.3	0.0	1.3	2.1
Wagga Wagga	0.0	2.1	0.0	0.0	0.0	0.0	2.1
Warrumbungle	0.0	0.6	0.0	0.0	0.0	0.0	0.7
43 region sub-total	**0.0**	**245.7**	**0.0**	**27.1**	**0.0**	**10.1**	**282.8**
Rest of NSW	0.0	13.0	0.0	1.4	0.0	2.5	16.9
Inter-regional trade [a]	0.0	64.4	0.0	7.8	0.0	5.4	77.6
NSW Total	**0.0**	**323.1**	**0.0**	**36.3**	**0.0**	**18.0**	**377.4**
(a) see previous footnote							

Table A4-12: With and Without Game hunting licences GSP $m

REGION	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL
Albury City	0.3	5.1	0.1	0.9	0.1	0.0	6.5
Armidale Regional	0.2	1.7	0.1	0.1	0.0	0.6	2.7
Bathurst Regional	0.5	5.3	0.1	1.0	0.2	0.4	7.5
Bega Valley	0.5	2.6	0.1	0.0	0.4	0.0	3.6
Campbelltown	0.2	0.9	0.0	0.1	0.0	0.0	1.3
Central Coast	0.5	10.4	0.1	0.2	0.1	0.1	11.4
Clarence Valley	0.3	6.4	0.0	1.4	0.0	0.2	8.3
Coffs Harbour	0.3	4.4	0.1	0.2	0.0	0.1	5.0
Cowra	0.1	1.0	0.0	0.6	0.0	0.1	1.8
Dubbo Regional	0.2	5.5	0.0	0.1	0.1	0.5	6.5
Eurobodalla	0.3	2.1	0.1	1.3	0.0	0.0	3.8
Federation	0.0	0.7	0.0	0.0	0.0	0.4	1.1
Forbes	0.0	2.2	0.0	0.0	0.0	0.1	2.3
Glen Innes Severn	0.1	0.7	0.0	0.8	0.0	0.0	1.7
Goulburn Mulwaree	0.2	2.4	0.1	0.6	0.2	0.2	3.7
Greater Newcastle	2.9	29.0	0.5	2.0	0.2	0.9	35.5
Greater Sydney	17.1	152.2	3.7	17.5	0.6	4.6	195.7
Greater Wollongong	0.7	3.2	0.3	0.6	0.1	0.1	4.9
Griffith	0.1	1.1	0.0	0.1	0.0	0.1	1.4
Hay	0.0	0.9	0.0	0.0	0.0	0.6	1.5
Hilltops	0.0	1.5	0.0	0.0	0.0	0.1	1.7
Inverell	0.1	0.6	0.0	0.0	0.0	0.3	1.1
Kempsey	0.1	0.6	0.0	0.0	0.0	0.0	0.8
Lismore	0.4	1.3	0.0	0.2	0.0	0.1	1.9
Lithgow City	0.3	0.4	0.0	0.1	0.1	0.1	1.0
Liverpool Plains	0.0	0.2	0.1	0.2	0.0	0.2	0.7
Mid-Coast	0.1	2.5	0.0	0.2	0.1	0.1	3.0
Mid-Western Regional	0.1	1.1	0.0	0.1	0.1	0.2	1.7

REGION	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL
Muswellbrook	0.1	0.8	0.0	0.1	0.0	0.3	1.3
Oberon	0.5	0.3	0.0	0.0	0.2	0.1	1.1
Orange	0.3	3.9	0.1	0.1	0.3	0.3	5.0
Parkes	0.0	0.9	0.0	0.0	0.0	0.1	1.0
Port Macquarie-Hastings	0.1	6.4	0.0	2.2	0.0	0.0	8.8
Queanbeyan-Palerang Regional	0.5	2.8	0.1	0.9	0.1	0.2	4.6
Richmond Valley	0.1	0.9	0.0	0.0	0.0	0.3	1.3
Shoalhaven	0.7	3.2	0.1	0.3	0.0	0.0	4.3
Snowy Monaro Regional	0.4	2.0	0.1	0.1	0.2	0.0	2.9
Snowy Valleys	0.4	0.3	0.1	0.2	0.1	0.1	1.3
Tamworth Regional	0.7	10.4	0.2	1.2	0.3	1.3	14.1
Tweed	0.1	0.9	0.0	0.4	0.0	0.0	1.4
Upper Hunter	0.1	1.0	0.0	0.5	0.0	1.3	2.9
Wagga Wagga	0.4	2.7	0.1	0.1	0.1	0.1	3.4
Warrumbungle	0.0	0.8	0.0	0.2	0.1	0.2	1.3
43 region sub-total	**30.0**	**283.1**	**6.4**	**34.7**	**3.9**	**14.9**	**372.9**
Rest of NSW	2.1	17.5	0.4	2.0	0.6	3.7	26.2
Inter-regional trade [a]	8.8	77.6	1.8	10.6	2.4	8.5	109.7
NSW Total	**40.9**	**378.3**	**8.6**	**47.3**	**6.9**	**27.0**	**508.9**
(a) see previous footnote							

Appendix 5: Detailed modelling results – Employment (FTE)

NSW EMPLOYMENT FTE – FIREARMS

Table A5-1: <u>With</u> Game hunting licences FTE

REGION	PUBLIC LAND		PRIVATE LAND		
	Direct	Flow-on	Direct	Flow on	Total
Albury City	2	1	4	2	6
Armidale Regional	1	1	3	2	5
Bathurst Regional	3	1	4	2	6
Bega Valley	5	2	3	1	4
Campbelltown	1	1	1	1	2
Central Coast	3	2	2	1	4
Clarence Valley	2	1	2	1	4
Coffs Harbour	2	1	2	2	4
Cowra	1	0	1	1	2
Dubbo Regional	1	1	5	3	8
Eurobodalla	2	1	1	1	2
Federation	0	0	0	0	0
Forbes	0	0	0	0	0
Glen Innes Severn	1	0	1	1	1
Goulburn Mulwaree	1	1	3	2	5
Greater Newcastle	16	10	20	11	31
Greater Sydney	79	59	83	62	144
Greater Wollongong	4	2	8	4	12
Griffith	1	0	1	1	2
Hay	0	0	0	0	1
Hilltops	0	0	1	0	1
Inverell	0	0	1	0	1
Kempsey	0	0	2	1	2
Lismore	2	1	3	2	4
Lithgow City	2	1	2	1	3

REGION	PUBLIC LAND		PRIVATE LAND		
	Direct	Flow-on	Direct	Flow on	Total
Liverpool Plains	0	0	1	0	1
Mid-Coast	1	0	2	1	2
Mid-Western Regional	1	0	2	1	4
Muswellbrook	1	0	3	1	4
Oberon	4	1	2	0	2
Orange	2	1	8	4	12
Parkes	0	0	1	1	2
Port Macquarie-Hastings	1	0	1	1	2
Queanbeyan-Palerang Regional	3	2	4	2	6
Richmond Valley	1	0	1	0	1
Shoalhaven	4	2	5	3	7
Snowy Monaro Regional	3	1	5	1	6
Snowy Valleys	3	1	2	0	2
Tamworth Regional	4	3	7	4	11
Tweed	0	0	1	0	1
Upper Hunter	0	0	4	1	5
Wagga Wagga	2	1	3	2	5
Warrumbungle	0	0	1	0	2
43 region sub-total	**160**	**101**	**203**	**126**	**329**
Rest of NSW	12	8	24	17	41
Inter-regional trade [a]	10	47	18	67	85
NSW Total	**182**	**155**	**246**	**210**	**456**
(a) see previous footnote					

Table A5-2: Without Game hunting licences FTE (firearms)

REGION	PRIVATE LAND		
	Direct	Flow-on	Total
Albury City	22	16	38
Armidale Regional	6	4	11
Bathurst Regional	29	14	43
Bega Valley	14	9	22
Campbelltown	4	2	6
Central Coast	55	34	90
Clarence Valley	35	21	56
Coffs Harbour	22	14	36
Cowra	5	3	8
Dubbo Regional	27	15	42
Eurobodalla	13	5	18
Federation	5	2	7
Forbes	15	7	22
Glen Innes Severn	4	3	7
Goulburn Mulwaree	11	7	17
Greater Newcastle	144	83	226
Greater Sydney	617	460	1,077
Greater Wollongong	11	6	17
Griffith	5	3	8
Hay	6	3	9
Hilltops	8	5	13
Inverell	3	2	5
Kempsey	2	1	4
Lismore	5	3	7
Lithgow City	1	0	1
Liverpool Plains	1	0	1
Mid-Coast	16	7	23
Mid-Western Regional	5	3	8
Muswellbrook	2	1	3

REGION	PRIVATE LAND		
	Direct	Flow-on	Total
Oberon	1	0	1
Orange	14	9	23
Parkes	5	3	7
Port Macquarie-Hastings	44	20	63
Queanbeyan-Palerang Regional	13	7	20
Richmond Valley	5	2	7
Shoalhaven	15	8	23
Snowy Monaro Regional	12	3	14
Snowy Valleys	0	0	0
Tamworth Regional	50	32	82
Tweed	5	3	8
Upper Hunter	4	2	6
Wagga Wagga	10	8	18
Warrumbungle	4	2	6
43 region sub-total	**1,274**	**829**	**2,104**
Rest of NSW	72	49	121
Inter-regional trade [a]	100	333	433
NSW Total	**1,445**	**1,212**	**2,657**
(a) see previous footnote			

Table A5-3: <u>With</u> and <u>Without</u> Game hunting licences FTE (firearms)

REGION	PUBLIC LAND		PRIVATE LAND		
	Direct	Flow-on	Direct	Flow on	Total
Albury City	2	1	26	18	44
Armidale Regional	1	1	10	7	16
Bathurst Regional	3	1	33	16	49
Bega Valley	5	2	16	10	26
Campbelltown	1	1	5	3	8
Central Coast	3	2	58	36	93
Clarence Valley	2	1	38	22	60
Coffs Harbour	2	1	24	16	40
Cowra	1	0	6	3	10
Dubbo Regional	1	1	32	18	50
Eurobodalla	2	1	14	6	20
Federation	0	0	5	2	7
Forbes	0	0	15	7	22
Glen Innes Severn	1	0	5	3	8
Goulburn Mulwaree	1	1	13	8	22
Greater Newcastle	16	10	163	94	257
Greater Sydney	79	59	700	522	1,222
Greater Wollongong	4	2	19	10	29
Griffith	1	0	6	4	9
Hay	0	0	6	3	9
Hilltops	0	0	9	6	14
Inverell	0	0	4	2	6
Kempsey	0	0	4	2	6
Lismore	2	1	7	5	12
Lithgow City	2	1	3	1	4
Liverpool Plains	0	0	2	1	2
Mid-Coast	1	0	18	7	25
Mid-Western Regional	1	0	8	4	11
Muswellbrook	1	0	6	1	7

REGION	PUBLIC LAND		PRIVATE LAND		
	Direct	Flow-on	Direct	Flow on	Total
Oberon	4	1	2	1	3
Orange	2	1	22	13	35
Parkes	0	0	6	3	9
Port Macquarie-Hastings	1	0	45	20	65
Queanbeyan-Palerang Regional	3	2	17	9	26
Richmond Valley	1	0	6	2	9
Shoalhaven	4	2	19	11	30
Snowy Monaro Regional	3	1	16	4	21
Snowy Valleys	3	1	2	1	3
Tamworth Regional	4	3	56	37	93
Tweed	0	0	6	4	9
Upper Hunter	0	0	8	3	11
Wagga Wagga	2	1	13	10	23
Warrumbungle	0	0	5	2	8
43 region sub-total	**160**	**101**	**1,478**	**955**	**2,433**
Rest of NSW	12	8	96	66	162
Inter-regional trade [a]	10	47	118	400	518
NSW Total	**182**	**155**	**1,692**	**1,422**	**3,113**
(a) see previous footnote					

NSW EMPLOYMENT FTE – BOWS

Table A5-4: With Game hunting licences FTE

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Albury City	0	0	1	1	0	1
Armidale Regional	0	0	1	0	0	1
Bathurst Regional	1	0	1	1	0	1
Bega Valley	1	0	1	0	0	1
Campbelltown	0	0	0	0	0	0
Central Coast	1	0	1	1	0	1
Clarence Valley	0	0	0	0	0	0
Coffs Harbour	0	0	0	0	0	0
Cowra	0	0	0	0	0	0
Dubbo Regional	0	0	0	0	0	0
Eurobodalla	1	0	1	0	0	0
Federation	0	0	0	0	0	0
Forbes	0	0	0	0	0	0
Glen Innes Severn	0	0	0	0	0	1
Goulburn Mulwaree	0	0	1	1	1	2
Greater Newcastle	3	2	4	5	3	7
Greater Sydney	17	13	30	16	12	28
Greater Wollongong	2	1	2	2	1	4
Griffith	0	0	0	0	0	0
Hay	0	0	0	0	0	0
Hilltops	0	0	0	0	0	0
Inverell	0	0	0	0	0	0
Kempsey	0	0	0	0	0	0
Lismore	0	0	0	0	0	0
Lithgow City	0	0	0	0	0	0
Liverpool Plains	1	0	1	1	0	2
Mid-Coast	0	0	0	1	0	1

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Mid-Western Regional	0	0	0	1	0	1
Muswellbrook	0	0	0	1	0	1
Oberon	0	0	0	0	0	0
Orange	0	0	1	0	0	1
Parkes	0	0	0	0	0	0
Port Macquarie-Hastings	0	0	0	0	0	0
Queanbeyan-Palerang Regional	1	0	1	1	1	2
Richmond Valley	0	0	0	0	0	0
Shoalhaven	1	0	1	2	1	3
Snowy Monaro Regional	1	0	1	1	0	1
Snowy Valleys	1	0	1	0	0	0
Tamworth Regional	1	1	1	1	1	2
Tweed	0	0	0	0	0	0
Upper Hunter	0	0	0	2	1	2
Wagga Wagga	0	0	1	0	0	1
Warrumbungle	0	0	0	1	0	1
43 region sub-total	**34**	**21**	**55**	**42**	**25**	**68**
Rest of NSW	2	1	3	3	2	5
Inter-regional trade [a]	2	10	12	4	14	18
NSW Total	**39**	**33**	**71**	**49**	**42**	**91**
(a) see previous footnote						

Table A5-5: Without Game hunting licences FTE (bows)

REGION	PRIVATE LAND		
	Direct	Flow-on	Total
Albury City	4	3	6
Armidale Regional	0	0	0
Bathurst Regional	5	3	8
Bega Valley	0	0	0
Campbelltown	0	0	0
Central Coast	0	0	0
Clarence Valley	8	4	13
Coffs Harbour	1	0	1
Cowra	3	2	5
Dubbo Regional	1	0	1
Eurobodalla	9	4	13
Federation	0	0	0
Forbes	0	0	0
Glen Innes Severn	5	3	8
Goulburn Mulwaree	2	1	3
Greater Newcastle	7	4	11
Greater Sydney	65	49	114
Greater Wollongong	1	1	2
Griffith	0	0	1
Hay	0	0	0
Hilltops	0	0	0
Inverell	0	0	0
Kempsey	0	0	0
Lismore	1	1	2
Lithgow City	0	0	0
Liverpool Plains	0	0	0
Mid-Coast	1	0	1
Mid-Western Regional	0	0	0
Muswellbrook	0	0	0

REGION	PRIVATE LAND		
	Direct	Flow-on	Total
Oberon	0	0	0
Orange	0	0	0
Parkes	0	0	0
Port Macquarie-Hastings	15	7	22
Queanbeyan-Palerang Regional	4	2	7
Richmond Valley	0	0	0
Shoalhaven	0	0	0
Snowy Monaro Regional	0	0	0
Snowy Valleys	1	0	2
Tamworth Regional	5	4	9
Tweed	2	1	4
Upper Hunter	2	1	3
Wagga Wagga	0	0	0
Warrumbungle	0	0	0
43 region sub-total	**146**	**91**	**237**
Rest of NSW	8	5	13
Inter-regional trade [a]	10	40	50
NSW Total	**164**	**136**	**300**
(a) see previous footnote			

Table A5-6: With and Without Game hunting licences FTE (bows)

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Albury City	0	0	1	4	3	7
Armidale Regional	0	0	1	1	0	1
Bathurst Regional	1	0	1	6	3	9
Bega Valley	1	0	1	0	0	1
Campbelltown	0	0	0	1	0	1
Central Coast	1	0	1	1	1	1
Clarence Valley	0	0	0	9	5	13
Coffs Harbour	0	0	0	1	1	1
Cowra	0	0	0	4	2	6
Dubbo Regional	0	0	0	1	0	1
Eurobodalla	1	0	1	9	4	13
Federation	0	0	0	0	0	0
Forbes	0	0	0	0	0	0
Glen Innes Severn	0	0	0	5	3	9
Goulburn Mulwaree	0	0	1	3	2	5
Greater Newcastle	3	2	4	11	7	18
Greater Sydney	17	13	30	81	60	141
Greater Wollongong	2	1	2	3	2	5
Griffith	0	0	0	0	0	1
Hay	0	0	0	0	0	0
Hilltops	0	0	0	0	0	0
Inverell	0	0	0	0	0	0
Kempsey	0	0	0	0	0	0
Lismore	0	0	0	1	1	2
Lithgow City	0	0	0	1	0	1
Liverpool Plains	1	0	1	1	0	2
Mid-Coast	0	0	0	1	1	2
Mid-Western Regional	0	0	0	1	0	1
Muswellbrook	0	0	0	1	0	1

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Oberon	0	0	0	0	0	0
Orange	0	0	1	1	0	1
Parkes	0	0	0	0	0	0
Port Macquarie-Hastings	0	0	0	15	7	22
Queanbeyan-Palerang Regional	1	0	1	5	3	8
Richmond Valley	0	0	0	0	0	0
Shoalhaven	1	0	1	2	1	3
Snowy Monaro Regional	1	0	1	1	0	1
Snowy Valleys	1	0	1	2	0	2
Tamworth Regional	1	1	1	6	4	11
Tweed	0	0	0	3	1	4
Upper Hunter	0	0	0	4	1	5
Wagga Wagga	0	0	1	0	0	1
Warrumbungle	0	0	0	1	0	2
43 region sub-total	**34**	**21**	**55**	**189**	**117**	**305**
Rest of NSW	2	1	3	11	7	18
Inter-regional trade [a]	2	10	12	14	54	68
NSW Total	**39**	**33**	**71**	**213**	**178**	**391**
(a) see previous footnote						

NSW EMPLOYMENT FTE – DOGS

Table A5-7: With hunting licences FTE

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Albury City	0	0	1	0	0	0
Armidale Regional	0	0	0	2	2	4
Bathurst Regional	1	1	2	2	1	3
Bega Valley	5	2	6	0	0	0
Campbelltown	0	0	0	0	0	0
Central Coast	0	0	0	0	0	1
Clarence Valley	0	0	0	0	0	1
Coffs Harbour	0	0	0	0	0	0
Cowra	0	0	0	0	0	0
Dubbo Regional	0	0	1	1	1	2
Eurobodalla	0	0	0	0	0	0
Federation	0	0	0	0	0	0
Forbes	0	0	0	0	0	0
Glen Innes Severn	0	0	0	0	0	0
Goulburn Mulwaree	1	1	2	1	1	2
Greater Newcastle	1	1	2	1	1	2
Greater Sydney	3	2	5	4	3	6
Greater Wollongong	0	0	1	1	0	1
Griffith	0	0	0	0	0	0
Hay	0	0	0	0	0	0
Hilltops	0	0	0	0	0	0
Inverell	0	0	0	1	1	2
Kempsey	0	0	0	0	0	0
Lismore	0	0	0	0	0	0
Lithgow City	0	0	1	1	0	1
Liverpool Plains	0	0	0	1	0	2
Mid-Coast	0	0	1	0	0	1

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Mid-Western Regional	1	0	1	1	0	1
Muswellbrook	0	0	0	2	1	3
Oberon	2	0	2	1	0	1
Orange	2	1	3	1	1	2
Parkes	0	0	0	0	0	0
Port Macquarie-Hastings	0	0	0	0	0	0
Queanbeyan-Palerang Regional	1	0	1	1	0	1
Richmond Valley	0	0	0	0	0	0
Shoalhaven	0	0	0	0	0	0
Snowy Monaro Regional	1	0	2	0	0	0
Snowy Valleys	1	0	2	1	0	1
Tamworth Regional	2	1	3	1	1	2
Tweed	0	0	0	0	0	0
Upper Hunter	0	0	0	0	0	1
Wagga Wagga	1	0	1	0	0	1
Warrumbungle	0	0	1	2	1	2
43 region sub-total	**26**	**13**	**38**	**29**	**15**	**44**
Rest of NSW	3	2	6	6	5	11
Inter-regional trade [a]	1	12	13	4	15	20
NSW Total	**30**	**27**	**57**	**40**	**35**	**75**
(a) see previous footnote						

Table A5-8: Without Game hunting licences FTE (dogs)

REGION	PRIVATE LAND		
	Direct	Flow-on	Total
Albury City	0	0	0
Armidale Regional	1	1	2
Bathurst Regional	0	0	1
Bega Valley	0	0	0
Campbelltown	0	0	0
Central Coast	0	0	1
Clarence Valley	1	0	1
Coffs Harbour	0	0	1
Cowra	0	0	0
Dubbo Regional	2	1	3
Eurobodalla	0	0	0
Federation	3	1	4
Forbes	0	0	1
Glen Innes Severn	0	0	0
Goulburn Mulwaree	0	0	0
Greater Newcastle	4	2	6
Greater Sydney	17	13	30
Greater Wollongong	0	0	0
Griffith	0	0	1
Hay	4	2	6
Hilltops	0	0	0
Inverell	1	1	2
Kempsey	0	0	0
Lismore	0	0	1
Lithgow City	0	0	0
Liverpool Plains	0	0	1
Mid-Coast	0	0	0
Mid-Western Regional	1	0	1
Muswellbrook	0	0	0

REGION	PRIVATE LAND		
	Direct	Flow-on	Total
Oberon	0	0	0
Orange	0	0	0
Parkes	0	0	0
Port Macquarie-Hastings	0	0	0
Queanbeyan-Palerang Regional	1	0	1
Richmond Valley	2	1	3
Shoalhaven	0	0	0
Snowy Monaro Regional	0	0	0
Snowy Valleys	0	0	0
Tamworth Regional	6	4	10
Tweed	0	0	0
Upper Hunter	10	4	14
Wagga Wagga	0	0	0
Warrumbungle	0	0	0
43 region sub-total	**58**	**33**	**91**
Rest of NSW	14	9	24
Inter-regional trade [a]	6	27	33
NSW Total	**78**	**69**	**148**
(a) see previous footnote			

Table A5-9: With and Without Game hunting licences FTE (dogs)

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Albury City	0	0	1	0	0	0
Armidale Regional	0	0	0	3	2	6
Bathurst Regional	1	1	2	2	1	3
Bega Valley	5	2	6	0	0	0
Campbelltown	0	0	0	0	0	0
Central Coast	0	0	0	1	0	1
Clarence Valley	0	0	0	1	1	2
Coffs Harbour	0	0	0	1	0	1
Cowra	0	0	0	0	0	1
Dubbo Regional	0	0	1	3	2	5
Eurobodalla	0	0	0	0	0	0
Federation	0	0	0	3	1	4
Forbes	0	0	0	0	0	1
Glen Innes Severn	0	0	0	0	0	0
Goulburn Mulwaree	1	1	2	1	1	2
Greater Newcastle	1	1	2	5	3	8
Greater Sydney	3	2	5	21	16	37
Greater Wollongong	0	0	1	1	0	1
Griffith	0	0	0	0	0	1
Hay	0	0	0	4	2	6
Hilltops	0	0	0	0	0	1
Inverell	0	0	0	2	1	3
Kempsey	0	0	0	0	0	0
Lismore	0	0	0	0	0	1
Lithgow City	0	0	1	1	0	1
Liverpool Plains	0	0	0	2	1	2
Mid-Coast	0	0	1	1	0	1
Mid-Western Regional	1	0	1	2	1	2
Muswellbrook	0	0	0	2	1	3

REGION	PUBLIC LAND			PRIVATE LAND		
	Direct	Flow-on	Total	Direct	Flow on	Total
Oberon	2	0	2	1	0	1
Orange	2	1	3	2	1	2
Parkes	0	0	0	0	0	1
Port Macquarie-Hastings	0	0	0	0	0	0
Queanbeyan-Palerang Regional	1	0	1	1	1	2
Richmond Valley	0	0	0	2	1	3
Shoalhaven	0	0	0	0	0	0
Snowy Monaro Regional	1	0	2	0	0	0
Snowy Valleys	1	0	2	1	0	1
Tamworth Regional	2	1	3	7	5	12
Tweed	0	0	0	0	0	0
Upper Hunter	0	0	0	11	4	14
Wagga Wagga	1	0	1	0	0	1
Warrumbungle	0	0	1	2	1	2
43 region sub-total	**26**	**13**	**38**	**87**	**49**	**136**
Rest of NSW	3	2	6	21	14	34
Inter-regional trade [a]	1	12	13	10	42	52
NSW Total	**30**	**27**	**57**	**118**	**104**	**222**
(a) see previous footnote						

NSW EMPLOYMENT FTE – ALL HUNTING METHODS

Table A5-10: With Game hunting licences FTE

REGION	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL
Albury City	3	6	1	1	1	0	12
Armidale Regional	2	5	1	1	0	4	13
Bathurst Regional	4	6	1	1	2	3	17
Bega Valley	7	4	1	1	6	0	19
Campbelltown	2	2	0	0	0	0	5
Central Coast	4	4	1	1	0	1	12
Clarence Valley	3	4	0	0	0	1	8
Coffs Harbour	3	4	0	0	0	0	8
Cowra	1	2	0	0	0	0	4
Dubbo Regional	2	8	0	0	1	2	12
Eurobodalla	2	2	1	0	0	0	6
Federation	0	0	0	0	0	0	0
Forbes	0	0	0	0	0	0	1
Glen Innes Severn	1	1	0	1	0	0	4
Goulburn Mulwaree	2	5	1	2	2	2	12
Greater Newcastle	26	31	4	7	2	2	72
Greater Sydney	138	144	30	28	5	6	351
Greater Wollongong	6	12	2	4	1	1	26
Griffith	1	2	0	0	0	0	3
Hay	0	1	0	0	0	0	1
Hilltops	0	1	0	0	0	0	2
Inverell	1	1	0	0	0	2	4
Kempsey	1	2	0	0	0	0	4
Lismore	4	4	0	0	0	0	8
Lithgow City	3	3	0	0	1	1	8
Liverpool Plains	0	1	1	2	0	2	6
Mid-Coast	1	2	0	1	1	1	6

REGION	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL
Mid-Western Regional	1	4	0	1	1	1	8
Muswellbrook	1	4	0	1	0	3	9
Oberon	5	2	0	0	2	1	11
Orange	3	12	1	1	3	2	22
Parkes	0	2	0	0	0	0	3
Port Macquarie-Hastings	1	2	0	0	0	0	3
Queanbeyan-Palerang Regional	5	6	1	2	1	1	16
Richmond Valley	1	1	0	0	0	0	3
Shoalhaven	6	7	1	3	0	0	18
Snowy Monaro Regional	4	6	1	1	2	0	14
Snowy Valleys	4	2	1	0	2	1	11
Tamworth Regional	6	11	1	2	3	2	25
Tweed	1	1	0	0	0	0	3
Upper Hunter	1	5	0	2	0	1	10
Wagga Wagga	3	5	1	1	1	1	11
Warrumbungle	0	2	0	1	1	2	7
43 region sub-total	**261**	**329**	**55**	**68**	**38**	**44**	**796**
Rest of NSW	20	41	3	5	6	11	86
Inter-regional trade [a]	57	85	12	18	13	20	205
NSW Total	**337**	**456**	**71**	**91**	**57**	**75**	**1,087**
(a) see previous footnote							

Table A5-11: <u>Without</u> Game hunting licences FTE

REGION	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL
Albury City	0	38	0	6	0	0	45
Armidale Regional	0	11	0	0	0	2	13
Bathurst Regional	0	43	0	8	0	1	52
Bega Valley	0	22	0	0	0	0	23
Campbelltown	0	6	0	0	0	0	7
Central Coast	0	90	0	0	0	1	91
Clarence Valley	0	56	0	13	0	1	70
Coffs Harbour	0	36	0	1	0	1	38
Cowra	0	8	0	5	0	0	13
Dubbo Regional	0	42	0	1	0	3	47
Eurobodalla	0	18	0	13	0	0	31
Federation	0	7	0	0	0	4	11
Forbes	0	22	0	0	0	1	23
Glen Innes Severn	0	7	0	8	0	0	15
Goulburn Mulwaree	0	17	0	3	0	0	21
Greater Newcastle	0	226	0	11	0	6	243
Greater Sydney	0	1,077	0	114	0	30	1,221
Greater Wollongong	0	17	0	2	0	0	18
Griffith	0	8	0	1	0	1	9
Hay	0	9	0	0	0	6	15
Hilltops	0	13	0	0	0	0	14
Inverell	0	5	0	0	0	2	7
Kempsey	0	4	0	0	0	0	4
Lismore	0	7	0	2	0	1	10
Lithgow City	0	1	0	0	0	0	2
Liverpool Plains	0	1	0	0	0	1	2
Mid-Coast	0	23	0	1	0	0	24
Mid-Western Regional	0	8	0	0	0	1	9

REGION	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL
Muswellbrook	0	3	0	0	0	0	3
Oberon	0	1	0	0	0	0	1
Orange	0	23	0	0	0	0	24
Parkes	0	7	0	0	0	0	8
Port Macquarie-Hastings	0	63	0	22	0	0	85
Queanbeyan-Palerang Regional	0	20	0	7	0	1	27
Richmond Valley	0	7	0	0	0	3	10
Shoalhaven	0	23	0	0	0	0	23
Snowy Monaro Regional	0	14	0	0	0	0	15
Snowy Valleys	0	0	0	2	0	0	2
Tamworth Regional	0	82	0	9	0	10	100
Tweed	0	8	0	4	0	0	12
Upper Hunter	0	6	0	3	0	14	23
Wagga Wagga	0	18	0	0	0	0	18
Warrumbungle	0	6	0	0	0	0	7
43 region sub-total	**0**	**2,104**	**0**	**237**	**0**	**91**	**2,432**
Rest of NSW	0	121	0	13	0	24	157
Inter-regional trade [a]	0	433	0	50	0	33	515
NSW Total	**0**	**2,657**	**0**	**300**	**0**	**148**	**3,105**
(a) see previous footnote							

Table A5-12: <u>With</u> and <u>Without</u> Game hunting licences FTE

REGION	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL
Albury City	3	44	1	7	1	0	56
Armidale Regional	2	16	1	1	0	6	26
Bathurst Regional	4	49	1	9	2	3	69
Bega Valley	7	26	1	1	6	0	41
Campbelltown	2	8	0	1	0	0	11
Central Coast	4	93	1	1	0	1	102
Clarence Valley	3	60	0	13	0	2	78
Coffs Harbour	3	40	0	1	0	1	45
Cowra	1	10	0	6	0	1	17
Dubbo Regional	2	50	0	1	1	5	59
Eurobodalla	2	20	1	13	0	0	36
Federation	0	7	0	0	0	4	11
Forbes	0	22	0	0	0	1	23
Glen Innes Severn	1	8	0	9	0	0	19
Goulburn Mulwaree	2	22	1	5	2	2	33
Greater Newcastle	26	257	4	18	2	8	316
Greater Sydney	138	1,222	30	141	5	37	1,573
Greater Wollongong	6	29	2	5	1	1	45
Griffith	1	9	0	1	0	1	12
Hay	0	9	0	0	0	6	16
Hilltops	0	14	0	0	0	1	16
Inverell	1	6	0	0	0	3	11
Kempsey	1	6	0	0	0	0	8
Lismore	4	12	0	2	0	1	18
Lithgow City	3	4	0	1	1	1	10
Liverpool Plains	0	2	1	2	0	2	8
Mid-Coast	1	25	0	2	1	1	30
Mid-Western Regional	1	11	0	1	1	2	17

REGION	FIREARMS PUBLIC LAND	FIREARMS PRIVATE LAND	BOWS PUBLIC LAND	BOWS PRIVATE LAND	DOGS PUBLIC LAND	DOGS PRIVATE LAND	TOTAL
Muswellbrook	1	7	0	1	0	3	12
Oberon	5	3	0	0	2	1	11
Orange	3	35	1	1	3	2	45
Parkes	0	9	0	0	0	1	10
Port Macquarie-Hastings	1	65	0	22	0	0	89
Queanbeyan-Palerang Regional	5	26	1	8	1	2	44
Richmond Valley	1	9	0	0	0	3	13
Shoalhaven	6	30	1	3	0	0	42
Snowy Monaro Regional	4	21	1	1	2	0	29
Snowy Valleys	4	3	1	2	2	1	13
Tamworth Regional	6	93	1	11	3	12	126
Tweed	1	9	0	4	0	0	15
Upper Hunter	1	11	0	5	0	14	32
Wagga Wagga	3	23	1	1	1	1	29
Warrumbungle	0	8	0	2	1	2	13
43 region sub-total	**261**	**2,433**	**55**	**305**	**38**	**136**	**3,228**
Rest of NSW	20	162	3	18	6	34	243
Inter-regional trade [a]	57	518	12	68	13	52	721
NSW Total	**337**	**3,113**	**71**	**391**	**57**	**222**	**4,192**
(a) see previous footnote							

Appendix 6: Non game hunting licence hunter activity rates

Non game licenced hunters with firearm licences – activity rates

The proportion of non GHL hunter population with a firearm licence who hunted in NSW in the past 12 months was estimated as the number of adult NSW residents that reported they hunted with firearms divided by the total population of firearm licence holders with a recreational hunting reason for holding a firearm licence. Data on the number of adult NSW residents who actively participated in firearm-based hunting was sourced from the AusPlay Clearing House Data Portal[19]. AusPlay provides national, state and territory data on almost 400 different participation sports and activities in Australia and who is participating in them. The number of adults estimated to have participated in shooting sports were used[20]. Shooting sports include duck shooting, bird shooting, hunting (with guns) and shooting sports (other)[21]. The 10,871 adults who participated in shooting sports from AusPlay was used as the estimate of the active population of hunters with firearms. This number was then divided by our known firearms population of 188,766 (estimate derived from the NSW guns registry) to give a non-GHL, firearms population activity rate of 5.8%.

Non game licenced hunters without firearm licences – activity rates

A similar process was undertaken for the non-firearm hunting activity rate (I.e. for the hunting population using bows or dogs (for pigs)). No data are available for the participation rate for hunting pigs with dogs, and the participation rate for archery was used as a proxy for non-firearm hunting activity rate. The number of adults participating in archery in NSW was 12,218 individuals, as published by the AusPlay Data Portal. Archery includes bow hunting, crossbow shooting and other archery sports[22], and so is not as closely aligned but is the best available approximation at this point in time. The denominator to the number of persons actively participating in archery sports is the number of hunters that identified as bow hunters. The proportion of R-licenced hunters (59%) who are endorsed to hunt with bows was applied to the total hunting population (approximately 197,000 persons) to estimate a potential population of hunters who hunt with bows (which includes both active and inactive bow hunters and bow hunters who hunt with other methods in addition to bows). This estimate was approximately 116,500 persons. From this the activity rate of 10.5% was derived.

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[19] https://www.clearinghouseforsport.gov.au/research/ausplay/results

[20] https://app.powerbi.com/view?r=eyJrIjoiZGU1YWFhZDgtMmRhZi00YTgyLThhMzItYjc2ODk5NTg0MTg1IiwidCI6IjhkMmUwZjRjLTU1ZjItNGNiMS04ZWU3LWRhNWRkM2ZmMzYwMCJ9 . Navigate to participation by activity

[21] https://webcache.googleusercontent.com/search?q=cache:k82FtchZ9jgJ:https://www.clearinghouseforsport.gov.au/__data/assets/excel_doc/0008/757295/AusPlay-activity-list-July-2020.xlsx&cd=1&hl=en&ct=clnk&gl=au

[22] https://webcache.googleusercontent.com/search?q=cache:k82FtchZ9jgJ:https://www.clearinghouseforsport.gov.au/__data/assets/excel_doc/0008/757295/AusPlay-activity-list-July-2020.xlsx&cd=1&hl=en&ct=clnk&gl=au

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2.0	Final Draft Report	20/02/2023	J. McRobert H. Bailey		J. Longford E. Kelly	J. McRobert	A. Alford Department of Primary Industries
2.1	Final Draft Report (revised)	15/03/2023	J. McRobert H. Bailey T. Wardley			J. McRobert	A. Alford Department of Primary Industries
2.2	Final Draft Report (revised)	04/04/2023	J. McRobert		B. Gravenor	J. McRobert	A. Alford Department of Primary Industries
2.3	Final report	24/5/2023	J. McRobert H. Bailey T. Wardley	J.McRobert	B. Gravenor	J. McRobert	A. Alford Department of Primary Industries
2.4	Final report (revised)	31/5/2023	J. McRobert			J. McRobert	A. Alford NSW DPI