

**INQUIRY INTO WORK HEALTH AND SAFETY
AMENDMENT (REVIEW) BILL 2019**

Organisation: Federation of Hunt Clubs Inc

Date Received: 6 February 2020

Submission to the
NSW Parliamentary Inquiry into the
Work Health and Safety Amendment (Review) Bill 2019



**Federation of Hunting Clubs, Incorporated
P.O. Box 376
Baulkham Hills NSW 1755**

Introduction

The Federation of Hunting Clubs Inc. (Federation) welcomes the opportunity to comment on the *Work Health and Safety Amendment (Review) Bill 2019* (the Bill).

We note the object of the Bill is to amend the *Work Health and Safety Act 2011* and the regulations under the Act to:

- (a) Implement proposals based on recommendations made by the 2018 *Review of the model Work Health and Safety laws: Final report*¹ (Boland Review), and
- (b) Make minor amendments to the Act recommended by the *Work Health and Safety Act 2011* Statutory Review Report in relation to the application of the Act to 'dangerous goods' and 'high risk plant'.

Regrettably, the Bill fails to adopt many of the recommendations in the Boland Review. In particular any reference to Recommendations 3 and 5 is conspicuously absent. Failure to accommodate these and other key recommendations of the Review will have serious consequences and result in a WHS Act that fails to meet community expectations for improving workplace safety.

This submission:

- 1. identifies some (but not all) fundamental shortcomings of the Bill,
- 2. expands on the important issue of Noise-Induced Hearing Loss (NIHL) in the Agriculture sector, and
- 3. offers evidence-based recommendations to reduce the risks associated with impulse noise from firearms.

¹ [SafeWork Australia. Review of the model Work Health and Safety laws: Final report, December 2018](#)

1. Shortcomings of the Bill

Regrettably, many important recommendations from the Boland Review have not been incorporated into the Bill. A number of these (but not all) are discussed below.

Recommendation 3 – Continuously assess new industries, hazards and working arrangements

It is difficult to understand how this important recommendation is not mentioned in the Bill.

The Boland Review emphasises the importance of WHS laws ‘keeping pace with the changing nature of work’ so that regulators can continue to work effectively to reduce harm as industries evolve and new business models emerge.

There are compelling reasons for Recommendation 3 to be progressed as a matter of urgency, especially for the Agriculture sector, which is marked by rapid evolution and change:

- **technological innovation** (e.g. drones, digital technology)
- **new working arrangements** (e.g. outsourcing, share-farming)
- **regulatory change** (e.g. biosecurity obligations)

Agriculture – A Priority Industry

The *Australian Work Health and Safety Strategy 2012-2022* identifies the Agriculture sector among seven national priority industries chosen for prevention activities due to the high rates of injury and fatalities. Agricultural industries feature prominently in workplace fatalities and injuries, recording:

- the second highest fatality rate (14.6 deaths per 100,000), and
- the third highest frequency rate for serious claims (8.8 per million hours worked).²

The Boland Review similarly recognises the high prevalence of injury in the Agriculture sector:

“Controlling for workforce size... the frequency rate of serious claims was highest in the agriculture, forestry and fishing industry (9.6 serious claims per million hours worked)...”

Source: Boland Review

(Appendix A)

Finally, the *NSW Work Health and Safety Roadmap 2022* (August 2018) acknowledges:

- Action should focus on priority **sectors, harms, workers**, and **workplaces** where the most significant WHS risks exist, and
- Agriculture is one of the key priority areas.³

² Safe Work Australia 2018. [Priority Industry Snapshot: Agriculture](#)

³ Safe Work NSW 2018. [Work Health and Safety Roadmap for NSW 2022 August 2018](#)

Recommendation 5: Develop a new model Code on the principles that apply to duties

The Federation supports the Boland Review suggestion that Recommendation 5 be progressed as a matter of priority (page 56). The Review noted that small businesses generally expressed a preference for *more prescription*, summed up in requests to ‘just tell us what to do’ (page 49).

The Federation supports the view that additional guidance be provided through a new Code(s) to assist duty holders understand their obligations under the principles in sections 13-17 of the Act.

Any new Code(s) that is developed should include guidance for modern working arrangements in the Agriculture sector such as **outsourcing** and **share-farming**.

New Working Arrangements in the Agriculture Sector

The Rural Industries Research and Development Corporation (RIRDC) reports that the development and convergence of technologies in rural industries is occurring at a faster rate than the related regulatory framework; policy and regulation have not necessarily kept pace with the rapid advancements.⁴

The Bill makes no reference to **outsourcing** work arrangements referred to in the Boland Review, and which are increasingly common in the Agriculture sector. For example, contract harvesters and shearers; specialised service providers using drones for pest and weed control, surveying, stock management, and release of biological control vectors (insects) are becoming widely used (personal communication: Phil Barnes, Jason Letchford).

Farmers also commonly outsource vertebrate pest control (either partially or fully) to either recreational shooters (volunteers) or to licensed vertebrate pest controllers.

The Federation notes the definition of ‘**worker**’ in s7 of the WHS Act includes ‘**volunteers**’.

2. Noise-Induced Hearing Loss in the Agriculture Sector

The *Australian Work Health and Safety Strategy 2012-2022* identifies **Noise-Induced Hearing Loss** (NIHL) as one of six priority work-related conditions based on the severity of consequences for workers⁵.

Noise in the Agriculture sector is a significant yet often under-recognised hazard. Two-thirds of over 6,000 farmers screened at field days through the NSW Rural Noise Injury Prevention Program showed signs of noise injury on audiogram.⁶

A Rural Industries Research & Development Corporation (RIRDC) report in 2002 measured *average* and *peak* noise levels for 56 types of machinery and activities on-site at 48 farms

⁴ [Rural Industries Research and Development Corporation \(RIRDC\). Annual report 2018-2019.](#)

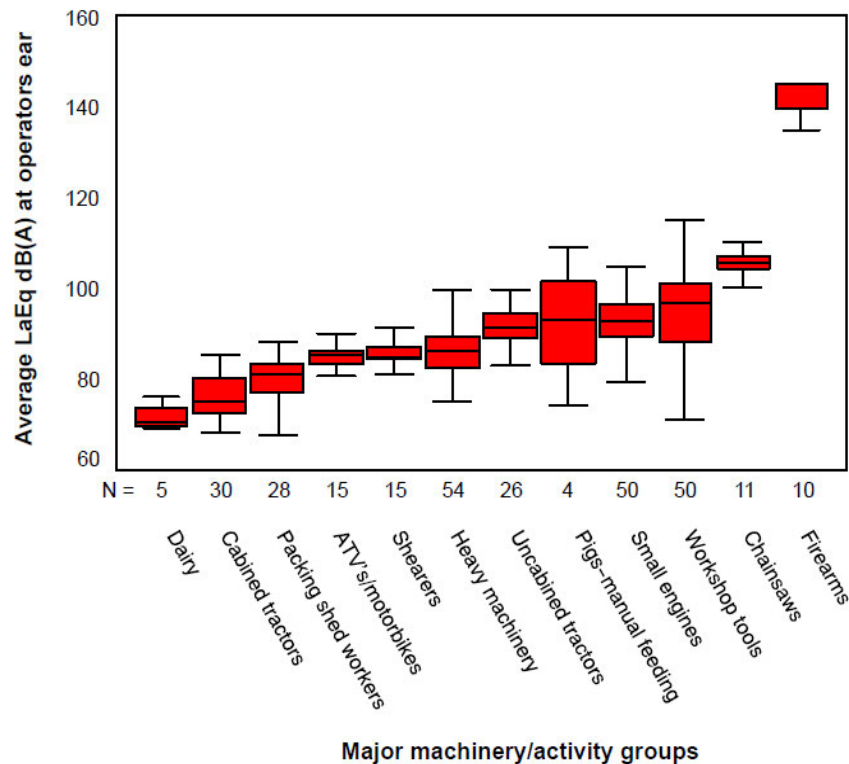
⁵ Safe Work Australia 2012. [Australian Work Health and Safety Strategy 2012-2022](#)

⁶ Depczynski *et al.* 2005. [Farm Noise Emissions During Common Agricultural Activities. Journal of Agricultural Safety and Health. 11\(3\): 325-334](#)

totaling 298 separate items/activities. The most extreme noise hazard, as far as loudness of noise, as opposed to duration, was with the use of firearms (Appendix B).⁷

Depczynski *et al.* 2005 noted that many farmers, farm workers, and family members are exposed to noise levels above the recommended levels and have greater hearing loss than their non-farming contemporaries. They found the use of firearms without hearing protection presents a pressing hearing health priority (Figure 1).

Figure 1. Mean noise levels, 95% confidence intervals, and ranges of aggregated machinery and activity groups while working at the operator's ear



Source: Depczynski *et al.* 2005

Persons suffering hearing loss not only suffer disabling personal and social consequences, they have been shown to be at increased risk for further occupational injury as a result of their sensory impairment (Depczynski *et al.* 2005).

The Federation emphasises the following key points:

1. 'Hearing Loss' meets the definition of 'serious injury or illness' in the WHS Act⁸
2. The 'exposure standard for noise' is $L_{Aeq,8h}$ of 85 dB or $L_{C,peak}$ of 140 dB(C)⁹
3. Impulse noise from firearms typically exceeds the exposure standard of 140 dB⁷
4. The comparative sound energy emitted by a **single shot** from a firearm at 140 dB is equivalent to almost a **full week** of continuous exposure at 90 dB.⁶

⁷ Depczynski *et al.* 2002. [Farm Noise Hazards: Noise Emissions during Common Agricultural Activities](#). RIRDC

⁸ s36 WHS Act – 'What is a serious injury or illness' includes the loss of a bodily function

⁹ c156 WHS Regulation - Meaning of "exposure standard for noise"

Hazard Elimination and Risk Control – Hierarchy of Control Measures

Clause 36 of the WHS Regulation requires that if it is not ‘reasonably practicable’ for a duty holder to **eliminate** risks to health and safety, a duty holder *must* implement control measures in accordance with the following sequence:

- (a) **Minimise** the risk/hazard,
- (b) **Substituting** (wholly or partly) the hazard for a lower risk hazard,
- (b) **Isolating** the hazard from any person exposed to it,
- (c) **Engineering** controls,
- (d) **Administrative** controls, and then if a risk remains
- (e) **Person Protective Equipment (PPE)**.¹⁰

The Federation supports the Boland Review recommendation that the concepts underpinning the ‘hierarchy of control measures’ be moved from the model WHS Regulations to the model WHS Act. This change would elevate the importance of these obligations to duty holders.

Hearing Personal Protective Equipment (PPE) - Ear Muffs

Earmuffs are not the panacea for mitigating Noise-Induced Hearing Loss. The shortcomings of earmuffs in protecting against hearing loss are widely recognised in the academic literature and in the Australian Standards.

Safe Work NSW acknowledges hearing PPE is the *last* and *least effective* control in the hierarchy and should only be used to manage any risk that is leftover after all higher-level controls have been implemented.¹¹

Discomfort

Williams (2007) measured the clamping pressure of 39 commonly available earmuffs and found that in all cases the pressures experienced on the side of the head were sufficient to restrict blood flow and produce discomfort.

Discomfort of earmuffs is not a trivial issue and can lead users choosing not to wear them, or wearing them incorrectly, increasing the possibility of noise leakage.

Noise Leakage

Gerges *et al.* (2012)¹² and Gerges *et al.* (2015)¹³ measured the pressure exerted by earmuffs on the side of the human head and on dummy human heads. The latter study confirmed that with too little pressure, noise leaks were created - the quantitative effect of ‘leakage’ on noise attenuation by earmuffs resulted in noise attenuation reduction between 4.4 to 4.7 dB (Figure 2).

This loss of noise attenuation may appear trivial, until one appreciates that the decibel scale is logarithmic, and for every 3 dB increase in noise, the corresponding increase in sound energy

¹⁰ Clause 36 WHS Regulation. [Hierarchy of Control Measures](#)

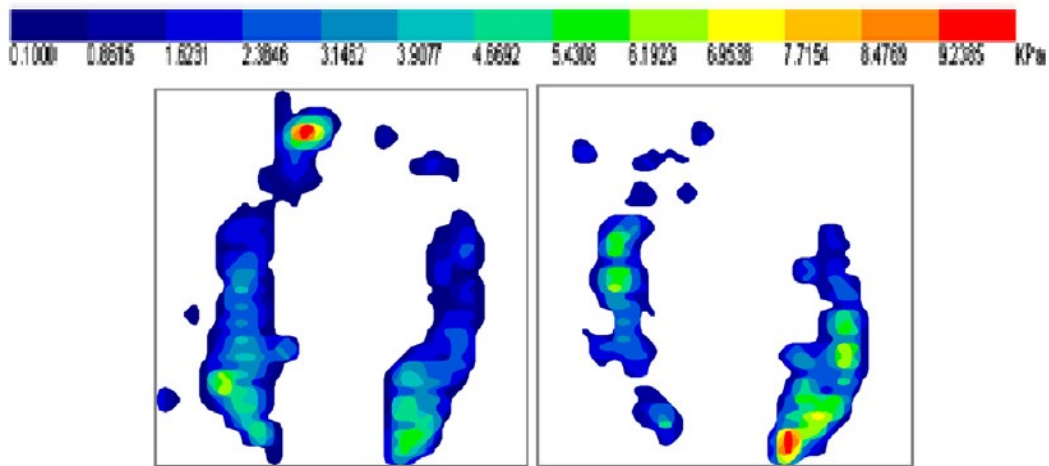
¹¹ Safe Work NSW. [Hearing personal protective equipment \(PPE\)](#)

¹² Gerges *et al.* 2012. [Earmuff Comfort. Applied Acoustics 73 \(2012\) 1003–1012](#)

¹³ Gerges *et al.* 2015. [Earmuff Noise Leakage Measurements and Evaluation. Archives of Acoustics Vol. 40, No. 1, 109-115](#)

(and hence risk of hearing damage) **doubles**. Conversely, for every 3 dB reduction in noise, sound energy is **halved**.¹⁴

Figure 2. Pressure map obtained from measurements taken on a human head



Source: Gerges 2012

Noise leakage is exacerbated if the user wears prescription or safety glasses. The National Acoustics Laboratories urges the following caution when wearing glasses:

*“For this reason one should be very careful when using safety glasses / goggles or normal glasses in conjunction with hearing protectors. There is no reason to believe that the reduction in SLC_{80} rating should be limited to 5 dB. It could be a lot more.”*¹⁵

Variation in Noise Attenuation with Hearing Protectors

Williams (2008) recognised there can be wide differences in noise attenuation experienced between laboratory testing of earmuffs and actual use in the field. These differences exist even within the *same individual* using the *same earmuff*, due to time-to-time variations in earmuff ‘fit’.¹⁶

Australian Standard AS/NZS 1270: Acoustics – Hearing Protectors also recognises that noise attenuation provided by earmuffs will be adversely affected by anything that impairs the seal of the earmuff cushions against the head, such as thick spectacle frames, balaclavas, jewellery, hats etc.

AS/NZS 1270 also notes an important exception to noise attenuation data collected using the standard method for measurement of real-ear attenuation of hearing protectors:

“The attenuation provided by hearing protectors to high-level impulse sounds, such as those generated by weapons, for which there are at present no standard test methods.”

¹⁴ Safe Work NSW. [Code of Practice – Managing noise and preventing hearing loss at work](#). August 2019

¹⁵ National Acoustic Laboratories. [Attenuation and use of hearing protectors](#). 8th Ed. March 1998

¹⁶ Williams 2008. [Hearing Protector Testing and Individual Variability](#). *Acoustics Australia* Vol. 36 August (2008) No. 2, 60-62.

3. Improving Hearing Protection - Firearm Suppressors (“Silencers”)

From the preceding submissions it is understandable that the WHS Regulation specifies that PPE (earmuffs) are the *last* and *least effective* option for hearing protection, and are *only* to be used after *all* other options have been tried.

Given the widespread practice in the Agriculture sector of farmers choosing to **outsource** pest control (either partially or fully) to licenced recreational shooters, it is nonsensical for NSW Police Force to *refuse* to issue prohibited weapon (“silencer”) permits to recreational shooters, when they *do* issue permits to vertebrate pest controllers, farmers and other primary producers.

Despite receiving many applications for firearm suppressor permits to reduce the risk of Noise-Induced Hearing Loss, NSW Police have only ever issued a *single* suppressor permit for ‘recreational/sporting purposes’.¹⁷

There seems to be a perception held by NSW Police that if suppressor permits are issued to recreational shooters, that somehow they will be misused or stolen and used by criminals in an attempt to conceal firearm crimes. However no evidence that suppressors are used by criminals has ever been presented by the Commissioner of Police in refusal decisions reviewed by the NSW Civil and Administrative Tribunal (NCAT).

Appendix 3 (Table 2 in Larsson 2018) contains a list of 23 gangland murders using firearms committed in NSW. In all cases, witnesses *heard* the shots. This suggests that criminals intent on using firearms do even consider using suppressors in an attempt to conceal their crimes.

Firearm Suppressors v Earmuffs

Branch 2011 compared firearm noise attenuation of commercially available ear-level hearing protection (earmuffs and earplugs) to that of firearm muzzle suppressors. All suppressors offered significantly greater noise reduction than ear-level protection, usually greater than 50% better.

Noise reduction of all ear-level protectors was unable to reduce the impulse pressure below 140 dB for certain common firearms, an international standard for prevention of sensorineural hearing loss.¹⁸

“Modern muzzle-level suppression is vastly superior to ear-level protection and the only available form of suppression capable of making certain sporting arms safe for hearing.”

Branch 2011

Firearms suppressors are readily available to recreational shooters in many countries including the UK, throughout Europe, the USA and New Zealand. It is illogical for these important hearing protection devices to be withheld from widespread availability and use in NSW.

¹⁷ Larsson 2018. [Update on firearm suppressors in New South Wales.](#)

¹⁸ Matthew Parker Branch, MD 2011. [Comparison of Muzzle Suppression and Ear-Level Hearing Protection in Firearm Use. Otolaryngology - Head and Neck Surgery 144\(6\) 950–953](#)

Concluding Comments

The proposals in the WHS Amendment (Review) Bill 2019 do not go far enough. Regrettably very few of the substantive recommendations from the Boland Review have been included.

The Bill requires substantial amendment if it is to provide workers the protections they deserve.

The Federation is especially disappointed that Recommendation 3 and Recommendation 5 appear to have been ignored.

This submission has unashamedly focused on the Agriculture sector, simply because this sector continues to be the source of a high proportion of workplace fatalities and serious injuries.

Noise in particular is a serious and debilitating hazard that needs to be addressed. Of all the sources of 'noise' in the Agriculture sector, noise produced by firearms poses the greatest risk for hearing loss and permanent damage.

Ironically, a solution to the risks posed by firearm noise is readily available - firearm suppressors.

Firearm suppressors are nothing more than a "car muffler" for firearms. Contrary to popular belief firearm suppressors neither "silence" firearm noise, nor are they used by criminals to conceal crime.

Recommendation

The Federation of Hunting Clubs Inc. recommends that the WHS Bill be appropriately amended to enable unimpeded access to firearm suppressors to licensed firearm owners. These amendments should be worded in such a way as to take precedence over any provisions of the Firearms Act or the Weapons Prohibitions Act that impede access to these devices.

Background on the Federation of Hunting Clubs Inc.

The Federation of Hunting Clubs Inc. (the Federation) is an umbrella organisation of over 50 hunting and shooting clubs representing members from all areas of New South Wales (NSW).

Our members are representative of a broad cross section of society and wide range of professional, trade, legal, business, teaching, academic, medical, police, industry and scientific qualifications and backgrounds.

Federation members hold appointments on a number of government advisory boards and committees, and have represented their country at National, Commonwealth and International level shooting competition events.

The Federation's membership also includes licensed firearms dealers – the hundreds of small businesses that support legal firearm ownership and use under the provisions of the *NSW Firearms Act 1996* and the *Weapons Prohibition Act 1998*.

Disclosure Statement

This submission was prepared by Stephen Larsson, an honorary member of the Australian Conservation Hunters' Association (ACHA). The ACHA is an affiliate member of the Federation of Hunting Clubs Inc. Mr Larsson works in the NSW Parliamentary office of the Shooters, Fishers and Farmers Party.