

# Learning Review

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## Shotgun pellets contact building at Otago Corrections Facility.

Mark Hammond

The purpose of a Learning Review is to improve safety by preventing further accidents or mitigating their consequences. It is not the purpose of the review to establish blame or liability. Accordingly, it is inappropriate that any report completed should be used to assign fault, blame or liability given, neither the information gathering or reporting process, has been undertaken for that purpose. The findings of the review are based on the evaluation of the Lead Reviewer and Review Team based on the evaluation of the evidence that was available at the time of the review. The findings are intended to explain what happened, and why, in a fair and unbiased manner.

## General Event Details:

H&S Tracker Incident Number: S 9(2)

**Short title: Unit 35 front yards - Prisoner gets hit on the head with small ball bearing**

**Date of incident:** 18<sup>th</sup> July 2020

**Time of incident:** 14:00 hours

**Exact location of incident:** Prisoner yards - Unit 35 Otago Corrections Facility

**Injured Person(s) (IP)** ☐ (Tick box if applicable)

**Injured Person Name(s):** Prisoner S 9(2)(a)

- ☐ Employee/Worker  
☐ Contractor/Visitor  
☒ Offender/Prisoner

**Nature of Injury sustained:** Minor laceration

**Equipment/Property Damage** ☐ (Tick box if applicable)

### **Risk Assessment**

Actual Consequence Assessment: First Aid

Potential Consequence Assessment: First Aid

Risk Assessment: Medical Treatment Injury

### **Short incident Description (from initial Tracker Incident entry):**

Prisoner S 9(2) claims something hit him on the head when in the front yards having daily rec.

The next morning 19/07/2020 prisoner reported the incident. Prisoner stated he removed a small ball bearing from his hair.

This item supposedly went through his prison issue beanie.

## Learning Review Team

Review Team Role	Name	Position
Lead Reviewer (LI) –	Mark Hammond	Senior Advisor Health and Safety
	Tharon Knoetze	PCO unit 35 OCF CANZ delegate
	Wayne Young	Industries Manager OCF
	Martin Potter	Chairman H&S committee OCF

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## Executive Summary:

SCO S 9(2) has been approved to shoot on the OCF farm area from July 2018, for the purposes of pest control.

Ducks are a nuisance at OCF due to the spreading of their faeces and food mess, in addition to attracting other vermin such as rats and mice. Corrections maintenance contractor, Downer Ltd, are not responsible for the control of ducks as they are not classed as pests within their contract. Allowing approved staff to shoot on site allows for duck numbers to be reduced, when no other means is available.

SCO S 9(2) submitted a safety plan to shoot on 18 July, which was approved by the Prison Director on 14 July. This included specified locations and was shared with Farm Instructors to ensure workers were confined to dairy sheds and yards areas (outside of shooting area).

On 18 July, after the farm workers had finished work for the day, SCO S 9(2) fired a single shot at ducks rising from wetlands that were not documented on the safety plan. Staff in Unit 35 noticed that pellets fired from the shotgun on the farmland opposite them had contacted the roof and yards of their unit. SCO S 9(2) was contacted by two-way radio and ceased shooting.

The following morning, Prisoner S 9(2) has reported to staff that he found a pellet embedded in his hair and claimed that this hit him whilst he was in the yards the previous day. Staff organised for a medical examination.

Security footage shows prisoner S 9(2) in the yard area with 6 other prisoners at the time the pellets hit the roof. He was wearing a prison issue beanie but neither he nor any other prisoners appear to react to any falling objects. The same footage shows another prisoner picking an object from the concrete and giving it to prisoner S 9(2).

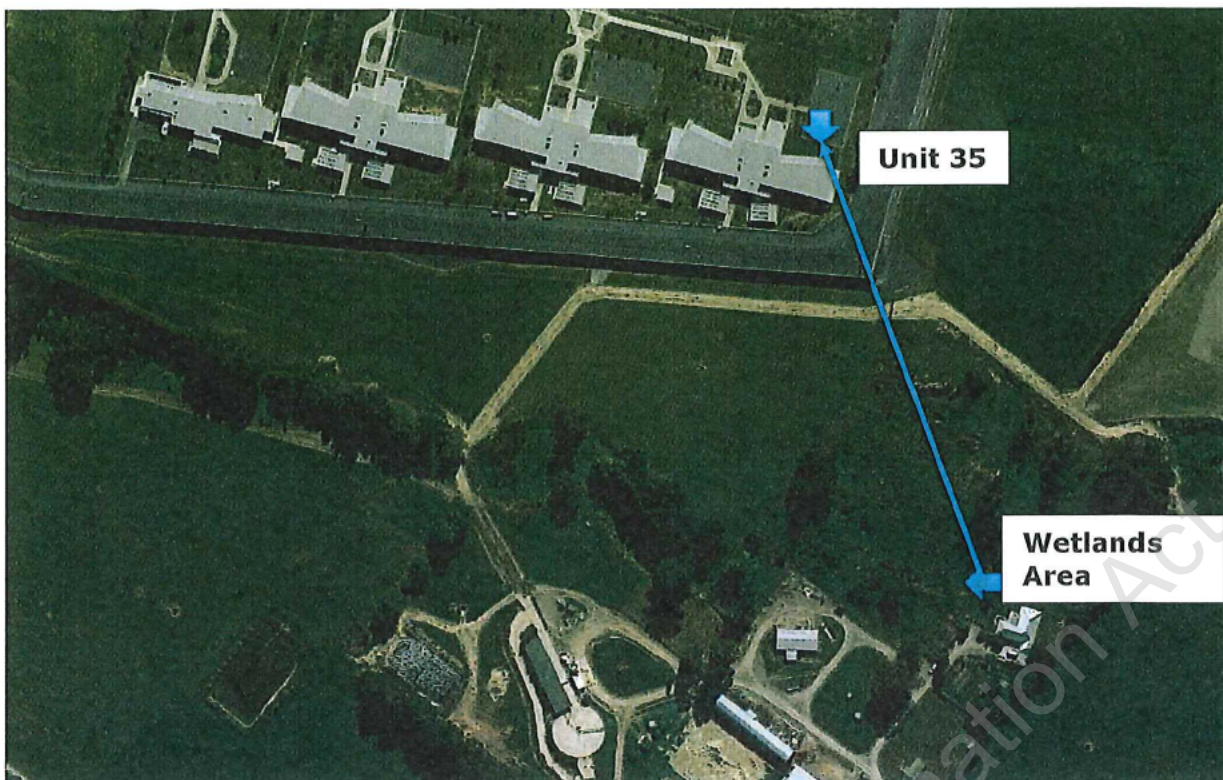
Regardless of the likelihood of the pellet making contact with prisoner S 9(2) the central issue of this investigation is that shotgun pellets were able to reach the prison compound roof or yards.

The investigation has focused on the planning processes and has determined that some process enhancements should be considered before pest eradication involving shooting can be reinstituted at OCF. Further, these enhancements should be considered throughout the Corrections Prison estate where firearms use is approved.

Recommendations include:

- Alterations to the Firearms and Captive Bolt policy to remove the PD's exemption for having 2 staff to be present during firearms activity
- Introduce a Safe Work Method Statement or safety plan system to be completed on a case-by-case basis that includes:
  - implement exclusion zones at least 50m beyond the calculated maximum trajectory of shot fired in any direction
  - a full assessment of the type of weapon, ammunition and other variables that alter the range of projectiles.
- Investigate alternative duck control measures at OCF, i.e. modifying the existing pest control aspect of the Downer contract or use of 3rd party pest control contractor with a permit issued by Fish & Game NZ for out of season culling.





The shooter was standing in wetlands area and fired towards unit 35 hitting the roof and yards area when aiming at a flying duck distance approximately 175 metres.

The Incident:

### Sequence of Events:

**Pre-Event details:** Approved shooter SCO S 9(2) submitted his safety plan for approval to Prison Director, Dave Miller, which was approved on 14 July 2020. The plan is approved, and the shoot is scheduled to take place on Saturday 18 July. Weather conditions expected a cool calm morning with low winds. Farm Instructors are informed that there will be a shooter on the farm, and they have been provided with a plan, so workers can be informed to keep clear in the start-up briefing. Workers are confined to dairy duties around the yards and milking sheds area.

**Event details:** After shooting on each of the ponds marked on his safety plan during the morning, SCO S 9(2) hears on his two-way radio that staff and prisoner workers on the farm are finished for the day at approximately 1330. SCO S 9(2) then moves from his position at the runoff ponds and heads for the wetland area as he now knows there are no workers present on the farm. SCO S 9(2) fires at a duck rising off the wetland area at approximately 1440. This is approximately 175m from unit 35.

**Post-Event Response:** SCO S 9(2) hears from the security supervision officer that staff in unit 35 report pellets have contacted the roof of the unit. SCO S 9(2) then packs up and leaves the area. No mention of any injury or property damage have been reported apart from the pellet contact on the roof and yards until the next morning.

### Immediate Actions taken

Immediate ceasing of all shooting activity at OCF following the report from prisoner S 9(2)

### Background and Relevant Information

1. **People** - SCO S 9(2) has been employed at Corrections since S 9(2)(a). SCO S 9(2) was approved to shoot on OCF land on 18 July 2018. SCO S 9(2) holds a firearms license which expires S 9(2)(a) (Appendix 4). SCO S 9(2) stated that he has made an error in judgement of the distance to the prison fence from where he fired at a duck rising from the wetlands area near the farm office. He acknowledges that area of the farm was not mentioned on his safety plan. SCO S 9(2) was conducting the cull in his own time, i.e. he was not at work. Video footage is saved by OCF Security



showing the prisoners (including prisoner S [REDACTED]) in unit 35 yards at the time of the event. This does not show any reaction from any of the prisoners at the time of the event.

2. **Equipment** - Harrington and Richardson 12 gauge 5 shot semi-automatic shotgun in used but in good order. The shotgun is chambered for 2/34 ammunition, the single barrel has an adjustable choke system. SCO S 9(2) reports that he had the full choke in at the time. This means the shot is concentrated in a tighter group when fired, it does not allow for extended range as the powder rating of the cartridge determines the power to move the shot. 35 grain powder weight. Falcon manufacturers information guide states No2 shot 35 grain steel has an expected kill zone of 55m, but can carry in excess of 100m further (if not obstructed).
3. **Environment** - Otago Corrections facility farm is a mainly a dairy herd operation of 137 hectares. The land is mostly flat and rolling pasture with runoff into a series of creeks and ponds. The weather conditions indicated light southwest winds turning to northwest in the afternoon, clear with a temperature high of up to 10 degrees. The wetlands where the last shot was fired was approximately 175m from unit 35.
4. **Processes** - Corrections has a policy that covers shooting on Corrections property called "Firearms and Captive Bolt Guns". This policy sets out the requirements for both types; however, this review has focused on the firearms section of the policy. The policy sets out the requirement to approve suitable persons to use firearms on Corrections property and has subsections (A) dealing with humanely killing sick animals, and (B) Pest control. The policy has attachments that include (1) Authorised Firearms User Request form (2) National Commissioners Authorised Firearms User form (3) Standard Operating Procedures for Firearms (4) link to section 86 of the Corrections Act 2004 covering the use of firearms on Corrections property. There is no mention of ammunition in the firearms policy. A flowchart named Health and Safety Risk assessment. (Appendix 1) is linked to the policy.

The approval process for operating firearms on Corrections property consists of the initial application form for the shooter called the Authorised Firearms User Request form. This form is signed off by the Assistant Prison Director, Prison Director and endorsed by the General Manager Prison Industries.

A second form is then completed and approved by the National Commissioner which is sent by Prison Industries. Once completed and approvals agreed, the applicant is authorised to operate a firearm at the prison stated on the applications.

There is a Standard Operating Procedure document for either firearms or captive bolt guns. This review has focused on the firearms SOP. The firearms SOP is a typical guidance document concentrating on Corrections legislative requirements and NZ Police Arms Act guidance including the firearms arms code rules (Appendix 3). Of note, Rule 5 of the NZ Police Arms Code 1983: Check your firing zone. Be aware of what you could hit in the area between you and your target, and in the area beyond your target. Ask yourself "What could happen if I miss my target?"

Additionally, a list of seven further Corrections requirements are listed at the bottom of the document. This SOP is not typical of other industry examples as it does not provide specific information of the safe operation of the equipment (firearm) nor provide an awareness of the risks that may be encountered and how to manage those risks. The firearms and captive bolts guidance also provide a link named Health and Safety Risk Assessment (Appendix 3) which opens into a health and safety risk flowchart. The flowchart runs through a generic 4 step process and provides hints on the steps to take in the risk assessment process. It does not provide specific risk guidance or management relating to firearms use and requires the reader to have a reasonable knowledge of health and safety processes to decipher the flowchart and apply real life solutions to identified risks.

The safety plan used at OCF has been created locally and does not provide a risk matrix with an initial and residual score capability. There is no oversight such as would be expected when completing high risk work practices, there is no high-risk work permits process (even though this task is similar to other high risk tasks including working in confined spaces with electricity or working at heights). The safety plan provided was submitted to the Prison Director and approved in an email response to SCO S 9(2) on 14th July (Appendix 2).



5. **Organisation** - OCF is built in a rural environment surrounded by wetland areas which are an ideal habitat for ducks. There are a large number of ducks, estimated to be in the hundreds. These ducks have lived within the perimeter of the institution virtually unmolested since the prison opened in 2007, both feeding and breeding within the inner prison areas and establishing a colony. The ducks walk about eating the lush grass and gardens as well as depositing their droppings in staff and prison walk areas. Unlike other birds found within prison environments, ducks are not considered pests (they are instead game birds) and therefore are not covered under the Downer maintenance contract, which makes them extremely difficult to get rid of. Duck prevention nets are currently in place in the inner perimeter of the prison where ducks can access ponds, however this solution is not a feasible duck prevention or control option for the OCF farm ponds due to size and location. Other forms of pest bird eradication and control that pest control companies commonly use are bird netting, trapping, poisoning, bird spikes and electric bird deterrents, however these are generally used in commercial environments for pest birds, and have therefore not been considered by the site as an option. OCF have a list of 7 approved hunters who can participate in game bird hunting during the game bird season from 1<sup>st</sup> May to 31<sup>st</sup> July each year. This goes some way to minimising the damage caused by ducks throughout the year. This incident is the first in the years that has raised concerns regarding shooters have been approved at OCF.

## Causation Analysis

### ICAM Causation Table

*These are a summary of the observations gained following ICAM Analysis.*

ICAM Analysis Table				
Organisational Factors	Task/Environment Conditions	Individual/Team Actions	Absent/Failed Defences	Incident
Shooting option chosen as ducks outside pest definition for Downer pest management contract	Ducks found in areas outside planned shoot areas	Firearm discharged in area not approved in safety plan  Firearm discharged with building in firing zone	Procedures do not address range variables for firearm or ammunition used  Procedures don't define safety exclusion areas where shooting prohibited	Pellets from discharged firearm reached unit

## Conclusions/Findings:

1. A new Safety Plan should be prepared each time it is required, rather than for a time period as in this instance, not reviewed until 2021.
2. The HS&W flowchart does not provide enough guidance to eliminate or minimise all risks. It is not specific for the risk of firearms use and needs to be strengthened using other more specific documents to reduce the likelihood of confusion or error.
3. The Firearms and Captive bolt policy allow for the Prison Director to exempt the rule of 2 staff being present. The removal of the Prison Director approval of an exemption for only one staff member instead of two employees as shooters should be considered, given the work in and around water, and the likelihood of a second person providing safety guidance where other factors may be a consideration.
4. The establishment of shooting safety exclusion zones (no go areas) around OCF where shooting cannot take place due to the proximity of buildings or other circumstances where required.

5. There is no mention of variables such as ammunition, length of shotgun barrel, or barrel choke to inform where the predicted outer limits of the range the shot will fall.

### Summary of Recommendations:

1. A nationally approved Safety Plan or Safe Work Method Statement should be introduced for consistency.
2. The introduction of safety exclusion zones on the OCF farm of at least 50 metres beyond the limit of the travel of shot in any direction to ensure safe fall to earth away from buildings, people or livestock.
3. Investigate alternative methods of duck control at OCF, especially during the months that duck shooting is not permitted, e.g. use of a suitably qualified and competent contractor to undertake this work (for example Downer or another contractor) with the use of an out-of-season permit issued by Fish and Game.
4. High risk activities such as duck shooting must always be conducted with two or more staff present to minimise any risks that could occur.

### Key Learnings

1. OCF prison has an issue with ducks fouling walking areas and attracting vermin such as rats and mice; however ducks cannot be controlled as other pests would be as they are classed as game birds and are protected for 9 months of each year, only being targeted during game bird season from 1 May until the 31 July.
2. For OCF their current means of control is for approved staff to hunt on the farm area during game bird season; however, duck culls could potentially be conducted by a suitably qualified and competent contract pest controller, all year round, by holding an out-of-season permit issued from Fish and Game NZ.
3. When planning the process of the shoot, there is no information available to determine where the exclusion zones (no go areas) exist on the farm that can cause overshooting into buildings or areas where staff and others may be located, and these exclusion zones need to be established so shooters are aware of what is safe and what is not (e.g. signage, markings or barriers of some type).
4. It is safer for two staff to be present when shooting on the farm at OCF than it would be for one person alone as there are many hazards present including work in and around water. Also having two people will give a better perspective when determining the effective application of the safety plan.
5. When planning a shoot, the variables of firearm and ammunition must be taken into consideration to ensure that no go zones are effective in controlling the fall of shot in any direction.
6. Providing a specific firearms assessment process and planning template that is attached to the Firearms and captive bolt policy will assist staff to determine the safest means of applying controls to minimise risk when undergoing high risk tasks such as shooting/pest control. This should be used in conjunction with the risk assessment.




## Corrective actions

	Causation	Corrective Actions	Hazard Hierarchy Control Level	By Who	By When	Tracker Action Number
<b>Recommended Corrective Actions (applicable to the site)</b>						
1.	Organisation – Risk Management	Investigate alternative duck control measures at OCF (such as the inclusion of duck eradication in the pest control aspect of Downer contract or a 3 <sup>rd</sup> party pest control contractor, with a permit issued by Fish & Game NZ for any out of season shooting).	Substitution	Prison Director	Not Accepted	
2.	Absent/Failed Defences – Safe Operating Procedures	Establish safety exclusion or “No Go Zones” around OCF farm where shooting is not to be undertaken	Administration	Industries Manager	31 <sup>st</sup> January 2021	
<b>Recommended Corrective Actions (applicable Nationally and related to Organisational Factors)</b>						
3.	Organisation – Risk Management	Alter the Firearms and Captive Bolt policy to remove the exemption of PD decision allowing only 1 staff member, except for situations requiring urgent animal welfare management.	Administration	F&CB Policy Owner (GM Prison Industries)	March 2021	
4.	Organisation – Risk Management	Develop Safe Work Method System template that is included as an appendix to Firearms and Captive Bolt Policy for sites to complete on a case-by-case basis. This SWMS needs to include a risk assessment of firearms and ammunition used, and defined safety exclusion areas.	Administrative	F&CB Policy Owner (GM Prison Industries) & Team Leader Southern S&W Business Partnering	March 2021	

**Note:** Actions entered here must first be accepted/reviewed prior to entry into H&S Tracker system.

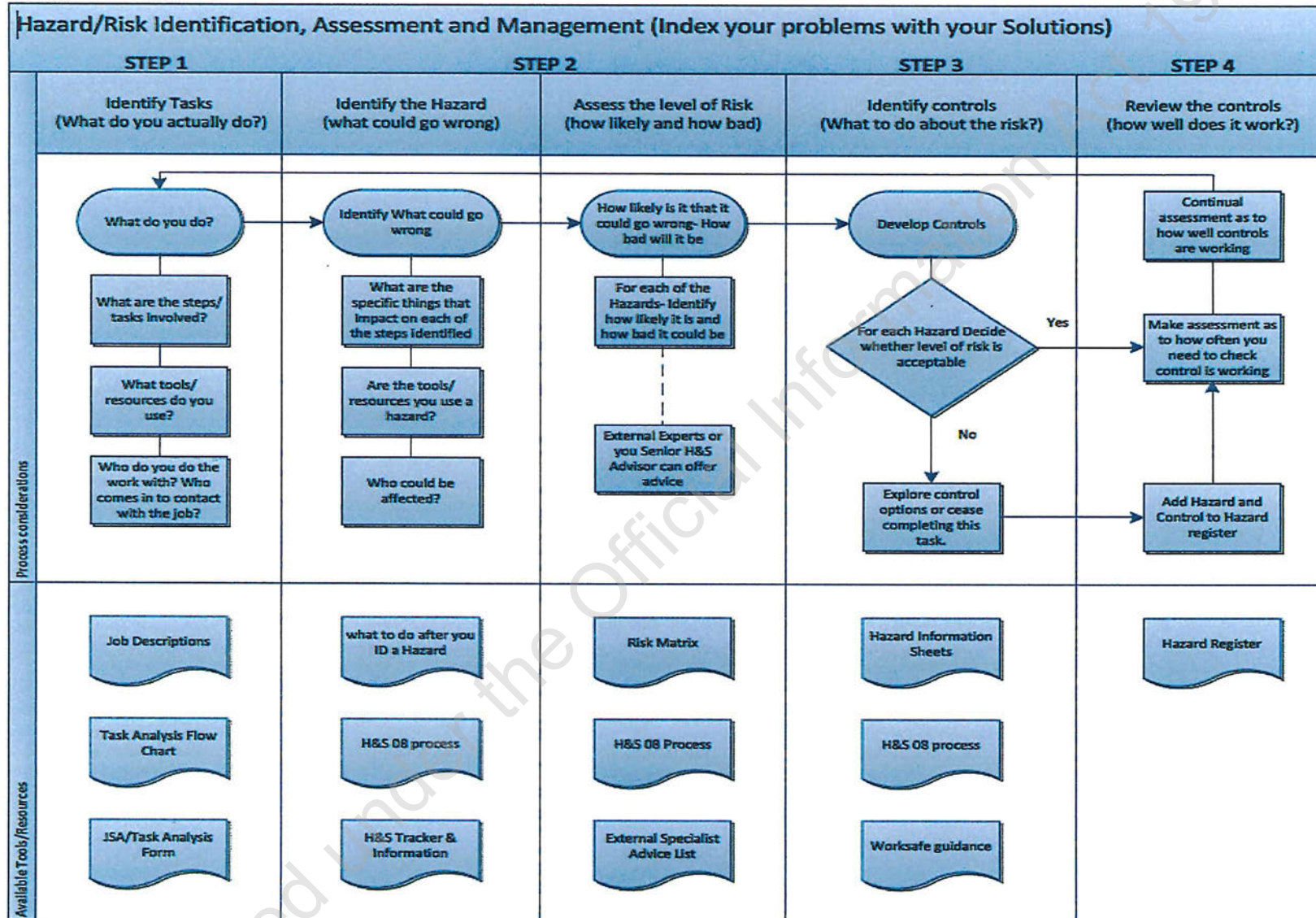
## Learning Review Approval

<b>Name:</b> Lyndal Miles	<b>Comments</b>  <b>Recommended Corrective Action 1 –alternative duck control measures at OCF.</b>  This was not accepted as: <ul style="list-style-type: none"> <li>• in the past, an out of season licence from NZ Fish &amp; Game was declined for the OCF farm.</li> <li>• Downer contract could not be investigated until it is due for renewal; however, Downer has advised previously that ducks are not considered a pest.</li> </ul>
<b>Position:</b> Prison Director, OCF	
<b>Signature:</b>	
<b>Date:</b>	

<b>Name:</b> Stefan Collins	<b>Comments</b>  <b>Correction Action 3 – remove PD authority to allow an exemption from the two person rule for firearm use.</b>  The policy intentionally provided the PD with authority to give an exemption to the two person rule for firearms use to support rapid animal welfare-based responses – essentially to increase the speed of response when a sick or injured animal needs to be shot. It was never envisaged that the exemption would ever be used for a pest cull event. A simple removal of the allowable exemption could materially complicate firearm use in the context of animal welfare, so my preference to address this issue is to allow exemptions to the two person rule, but narrow the range of situations where such an exemption is permissible to the management of animal welfare.  <b>Corrective Action 4 – develop and implement a SWMS and supporting collateral</b>  The concept of a SWMS aligns well with the existing policy intent – where an H&S assessment is to be completed in the case of pest culls. I would like any such recommendation to consider the practicalities of fuller H&S assessments where there is an urgent animal welfare matter that needs to be resolved. It may well be appropriate to increase the planning and control in matters of pest culling, but we need to be careful to ensure that any recommendation is balanced with our moral and legal obligation to deliver timely responses when animal welfare is at issue. It's also important to note that my GMPI team does not have the technical ability to develop a SWMS. This tasking will have to be led by S&W experts.
<b>Position:</b> General Manager, Prison Industries	
<b>Signature:</b> 	
<b>Date:</b> 25/11/2020.	

<b>Name:</b> Chris Jones	<b>Comments</b>
<b>Position:</b> Chief Safety Officer, Safety and Wellbeing	
<b>Signature:</b> 	
<b>Date:</b> 30/11/2020	







# Safe Operational Plan – Pest Control Management Plan

Site: Otago Correctional Facility

Date Document Drafted

14 July 2020

Plan review dates.

14 July 2021

Plan prepared by:

S 9(2)(a)

## Information Documents.

- Approved Pest Control – Duck Shooting
- Copy of Approvals Gun Licence
- Copy of Pest Control Approval
- Site Map at bottom of document
- Prison Director Approval

## Persons Undertaking Pest Control

- One person
- Have Current, Approved Gun Licence.
- Have a weighted line to collect ducks in pond / water.
- Firearm owned is a Harrington & Richardson 12 gauge semi automatic shotgun of 5 shot magazine capacity.

## Fire Arms control

- Current Game Bird Licence
- Entry to site method – Radio held. Will notify Master Control on arrival
- Shell case control measures
- Exiting site method

## Emergency / Rescue Plan

- Break, Break. Medical required.
- Master control
- 1.111 call ambulance
- Manager on site contacted
- 

## Dates and Times for site access

- Saturday 18 July – 6.30am arrival to site.

## Pest Control – Duck Shooting

- ✓ Stop all non essential moves in that area.
- ✓ Time shootings to occur at the times when no movement in that proposed area.
- ✓ Direction of shooting considered by the trained, approved and experienced person
- ✓ Times of shooting considered. Incorporating shift changes for Contractors, volunteers, visitors and staff.



#### Provisions for prisoners:

- Information?
- Local Duck shooting outside the wire.
- Two Locations. Map at bottom of plan

#### Disposal of ducks

- Collection of ducks
- Disposal of Ducks
- Private Vehicle

#### Information for Staff

- Information – Proposed dates fire arm discharged.
- Briefing prior to weekend of planned Pest Control
- Master control radio reminder on day

#### Physical environment

- Assess as described on the day. Monitoring radio for information and any movements information.

#### Operational

- Master Control -, permission / confirmation to start Pest control program as they can see other information through camera activity
- Notify Master Control on arrival
- Notify Master Control on Departure

#### Hazards

- Weather – assessed on day. Undertaking decision on day according to weather
- Visibility – according to day / weather
- Gun shot injury – Trained, approved and experienced persons conducting plan
- Property damage – Trained, approved and experienced persons conducting plan
- Ducks humanely disposed of by trained and approved person
- Any animals proximity in paddock behind. Assessed on day by day process and managed accordingly

#### Cold DEBRIEF – TBA

- Invitation to debrief
- What went well
- What could be improved on
- Review and update method
- Review and upgrade plan





Lines indicate the location of the ponds in the safety plan where shooting was approved, and the small arrow approximately where SCO S 9(2) fired towards unit 35 from. Note the arrow heads have no implication on direction.



## Standard Operating Procedures for Use of Firearms on Prison Property

**Note:** The SOP apply to the use of the firearm only. For the approval to use and recording requirements refer to the steps under the Actions heading in Part A of the Management of Firearms and Captive Bolt Guns policy.

### Legislative Requirements

#### **Corrections Act 2004**

- Section 86 (4) Firearms may not be used while prisoners are present and firearms may not be stored in a prison (Note: the definition of a prison includes land and buildings).

#### **Arms Act 1983**

- Section 26 (1) Employee must be able to produce their firearms licence for inspection whenever required to do so by any member of the Police.
- Section 58 (1) Employee who causes bodily injury to or the death of any person by the use of a firearm is required to report the incident as soon as reasonably practicable in person to the nearest Police station or to a member of the Police.

### Guidance

#### **New Zealand Police Arms Code 2013**

- The Arms Code is a firearms safety manual issued by the New Zealand Police containing information about the safe use of firearms. Employees that are authorised by the National Commissioner to carry or possess a firearm on prison property will already be the holder of a firearms licence and will be aware of this guidance. It is expected that employees will remain familiar with this guidance and apply/adhere to the guidance which includes the seven basic rules below:

*Rule 1: Treat every firearm as loaded*

*Rule 2: Always point firearms in a safe direction*

*Rule 3: Load a firearm only when ready to fire*

*Rule 4: Identify your target beyond all doubt*

*Rule 5: Check your firing zone*

*Rule 6: Store firearms and ammunition safely (not permitted on prison property)*

*Rule 7: Avoid alcohol and drugs when handling firearms*

A full copy of the NZ Police Arms Code can be accessed from the website below.

<http://www.police.govt.nz/advice/firearms-and-safety/arms-code>



#### Ministry for Primary Industries


- Access the Ministry for Primary Industries website to obtain the latest Codes of Welfare for the humane destruction of:
  - Dairy Cattle
  - Pigs
  - Sheep and Beef Cattle

#### Department of Corrections Additional Requirements

- Unless an exemption is given by the Prison Director at least two employees must be present when firearms are being used on prison property.
- Do not hand your firearm to any other person to hold unless they also hold a firearms licence.
- Carry your firearms licence on your person.
- Remove the firearm and all unused ammunition from prison property as soon as practicable following use.
- Authorised firearms user to ensure the firearm is of a suitable calibre for the purpose that it is being used.
- Authorised firearms user must ensure the firearm is in good working order and has been subject to an annual safety check by a registered firearms dealer.
- The firearm must be secured by the authorised staff member off prison property as soon as practicable following use (ie the staff member will need to return it to their home if that is where they usually store it).

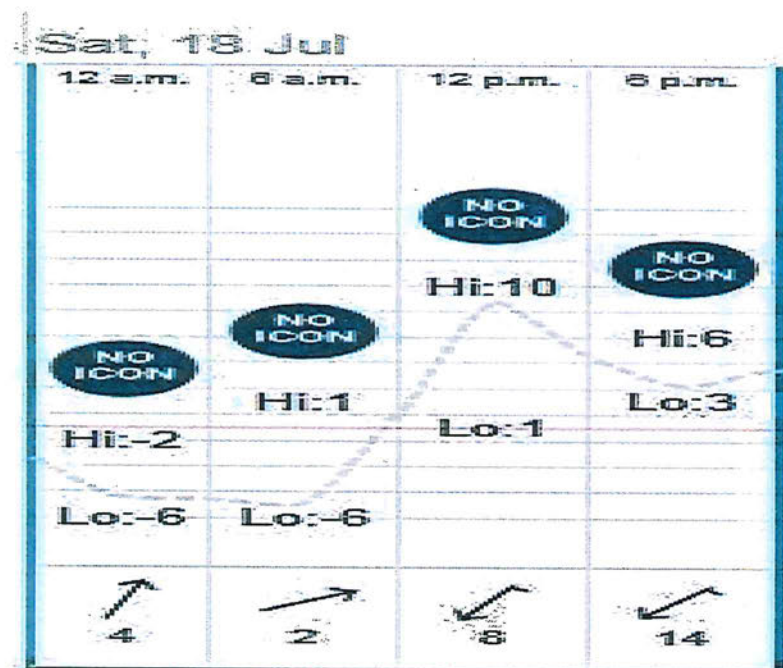
Appendix 4 - SCO S 9(2)(a) Firearms Licence

S 9(2)(a)





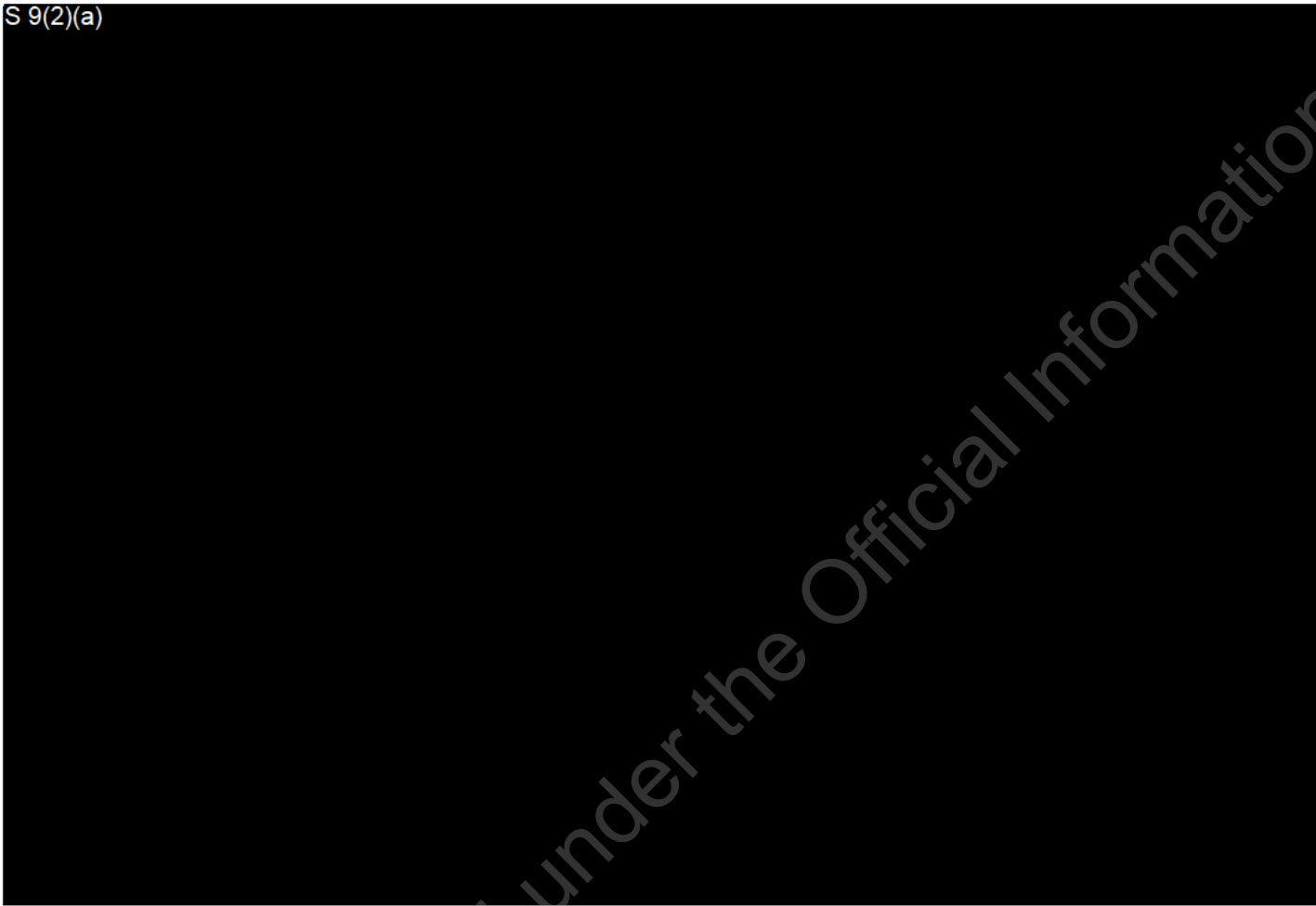
Appendix 5 - Milburn weather conditions on Saturday 18 July



Released under the Official Information Act 1982

Appendix 6 – Photo and Medical Note

S 9(2)(a)



Released under the Official Information Act 1982

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