Control method: Shooting of pest birds (small to medium)

Assumptions:	 Best practice is followed in accordance with BIR001 and the shooter is competent and will make accurate decisions about whether the shot can be successfully placed.
	 Firearms, ammunition and effective shooting ranges (as outlined in the standard operating procedure) are followed. Not adhering to these guidelines will result in less humane outcomes.
	 For small to medium birds such as starlings and ducks, the preferred method is a shot to the body of the bird with a shotgun. When firing, only single animals are targeted, not the group. Shooting is conducted in davlight hours.
	 The impacts in Part A of the assessment were considered on the group of birds being targeted – the first bird would be naïve but the impact would increase with each subsequent bird.

PART A: assessment of overall welfare impact

	DOMAIN 1 Water or food restriction, malnutrition						
	No impact	Mild impact	M	oderate impact	Severe impact	Extreme impact	
	DOMAIN 2 Environmental challenge						
	No impact	Mild impact	M	oderate impact	Severe impact	Extreme impact	
	DOMAIN 3 Disease, injury, functional impairment						
	No impact	Mild impact	M	oderate impact	Severe impact	Extreme impact	
	DOMAIN 4 Behavioural or interactive restriction						
	No impact	Mild impact	M	oderate impact	Severe impact	Extreme impact	
	DOMAIN 5	Anxiety, fear	, pain	, distress, thirst	, hunger		
	No impact	Mild impact	M	oderate impact	Severe impact	Extreme impact	
	Overall impact						
		Mild					
	-						
	DURATION OF IMPACT						
	Immediate to seconds		utes	Hours	Days	Weeks	

SCORE FOR PART A:	3
Summary of evidence:	
Domain 1	No impact in this domain.
Domain 2	No impact in this domain.
Domain 3	No impact in this domain.
Domain 4	No impact in this domain. Shooting often occurs during flight.
Domain 5	The evasive action of other birds indicates a fear response.

PART B: assessment of mode of death

Time to insensibility (minus any lag time)						
Very rapid	Minutes	Hours	Days	Weeks		
Level of suffering (after application of the method that causes death but before insensibility)						
No suffering	Mild suffering	Moderate suffering	Severe suffering	Extreme suffering		

SCORE FOR PART B:	В
Summary of evidence:	
Duration –	With shotguns, range is the major determinant of wounding capacity using any given load ^{1, 2} . If the bird is shot from an effective range the dense shot pattern is likely to cause death rapidly. Death occurs from damage to vital organs, haemorrhage and shock. Note that a small number of birds may be wounded and will require follow-up (i.e. a second shot or blow to the head) - for these birds the time to death could be minutes.
Suffering –	The severity and lethality of the gunshot depends on the number of pellets that enter the body, the organs struck and the amount of tissue destruction ³ . If birds are rendered insensible immediately with a well-placed shot from an effective range there should be no suffering.
	Note that a small number of birds may be wounded and will require follow-up (i.e. a second shot or blow to the head) - for these birds the level of suffering has been graded as moderate.

Summary

CONTROL METHOD:	Shooting of pest birds (small to medium)		
OVERALL HUMANENESS SCORE:		3B	
Comments			

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- Wilson, J.M. (1978). Shotgun ballistics and shotgun injuries. Western Journal of Medicine 129, 149-155
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- 3. Merck, M.D. (2007). *Veterinary forensics: animal cruelty investigations*. (Blackwell Publishers: Iowa).