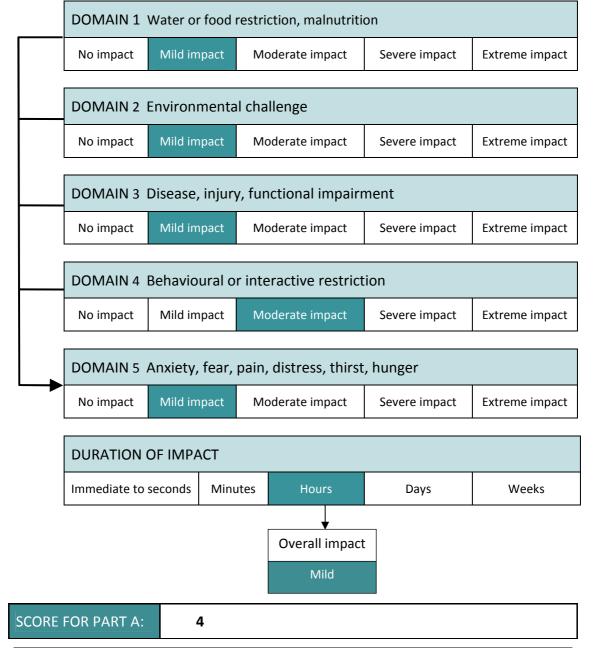
Control method: Cage trapping of feral cats followed by killing

Assumptions:	 Best practice is followed in accordance with CAT002.
	 Traps are set in the evening and checked in the morning.
	 Efforts are made to locate and kill any kittens if lactating queen is caught.
	 The effect on dependant young is not taken into consideration with this
	assessment only the impact on the target animal
	 Shooting is the usual method of euthanasia although lethal injection is
	sometimes used. With this assessment it is assumed that animals are shot
	or injected at site of capture. The impact will be significantly increased if
	animals are transported to another location for euthanasia – see separate
	assessment.
	 Cage trapping is often used when cats are at high densities around human
	settlements e.g. around rubbish tips, camping grounds and less often
	when cat densities are low in areas away from human habitation.

PART A: assessment of overall welfare impact



Summary of evidence:	
Domain 1	Traps are set in the evening and checked in the morning. Food bait is provided but no water.
Domain 2	Assumes traps are not set in bad weather and are placed in shaded areas.
Domain 3	There is the potential for minor injuries to be sustained, usually self- inflicted abrasions to the face ^{1, 2} .
Domain 4	There will be some restraint stress but cats quickly recover from this if released. The physiological response to capture has been found to be lower in animals caught in cage traps compared with leg-hold traps ³ . In foxes, cage traps caused an increase in cortisol compared with animals that were not trapped but this was lower than individuals caught in leg-hold traps ⁴ . There will be some exertion from struggling within the trap; however this will be lower compared with animals held by leg-hold traps ⁴ . Long entrapment periods could result in disruption of natural behaviour and motivational systems ⁵ .
Domain 5	It is likely that the animal will experience an elevation in anxiety and distress whilst trapped, however evidence that animals can be recaptured may indicate that overall impact is not high or long-term ² .

PART B: assessment of mode of death - shooting (head shot)

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

PART B: assessment of mode of death – lethal injection

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:	Shooting (head shot) - B
Summary of evidence:	
Duration –	With head shots, a properly placed shot will result in immediate insensibility ^{6,7,8}
Suffering –	The approach of a human to trapped cat will cause some distress ⁹ . A well- placed head shot which causes immediate insensibility should not cause any additional suffering.

SCORE FOR PART B:	Lethal injection - D
Summary of evidence:	
Duration –	The duration will start from approach of human followed by an intramuscular injection (IM) of sedative and/or anaesthetic agent with a pole syringe. Heavy sedation/loss of consciousness occurs approx. 15 minutes afterwards.
Suffering –	The approach of a human to trapped cat will cause some distress ⁹ . Also there will be some pain associated with the IM injection via the pole syringe. The animal is then not approached again until fully sedated or unconscious. An overdose of barbiturate administered by the intravenous, intraperitoneal or intracardiac routes should cause no suffering in an anesthetised or heavily sedated cat ⁷ .

Summary

CONTROL METHOD:	Cage trapping of feral cats followed by killing	
OVERALL HUMANENESS SCORE:		Cage trapping with shooting (head shot) – 4B Cage trapping with lethal injection – 4D
Comments		

Bibliography

- 1. Short, J., Turner, B. & Risbey, D. (2002). Control of feral cats for nature conservation. III. Trapping. *Wildlife Research* **29**, 475-487
- 2. Molsher, R.L. (2001). Trapping and demographics of feral cats (Felis catus) in central New South Wales. *Wildlife Research* 28, 631-636
- 3. Iossa, G., Soulsbury, C.D. & Harris, S. (2007). Mammal trapping: a review of animal welfare standards of killing and restraining traps. *Animal Welfare* **16**, 335-352
- 4. White, P.J., Kreeger, T.J., Seal, U.S. & Tester, J.R. (1991). Pathological responses of red foxes to capture in box traps. *Journal of Wildlife Management* **55**, 75-80
- 5. Schutz, K.E. et al. (2006). Behavioural and physiological responses of trap-induced stress in European badgers. *Journal of Wildlife Management* **70**, 884-891
- 6. Gregory, N. (2004). Physiology and behaviour of animal suffering. (Blackwell: Oxford, UK).
- 7. American Veterinary Medical Association (2001). 2000 Report of the AVMA Panel on Euthanasia. *Journal of the American Veterinary Medical Association* **218**, 669-696
- 8. Longair, J. et al. (1991). Guidelines for euthanasia of domestic animals by firearms. *Canadian Veterinary Journal* **32**, 724-726
- 9. Bakken, M., Moe, R.O., Smith, A.J. & Selle, G.M.E. (1999). Effects of environmental stressors on deep body temperature and activity levels in silver fox vixens (Vulpes vulpes). *Applied Animal Behaviour Science* **64**, 141-151