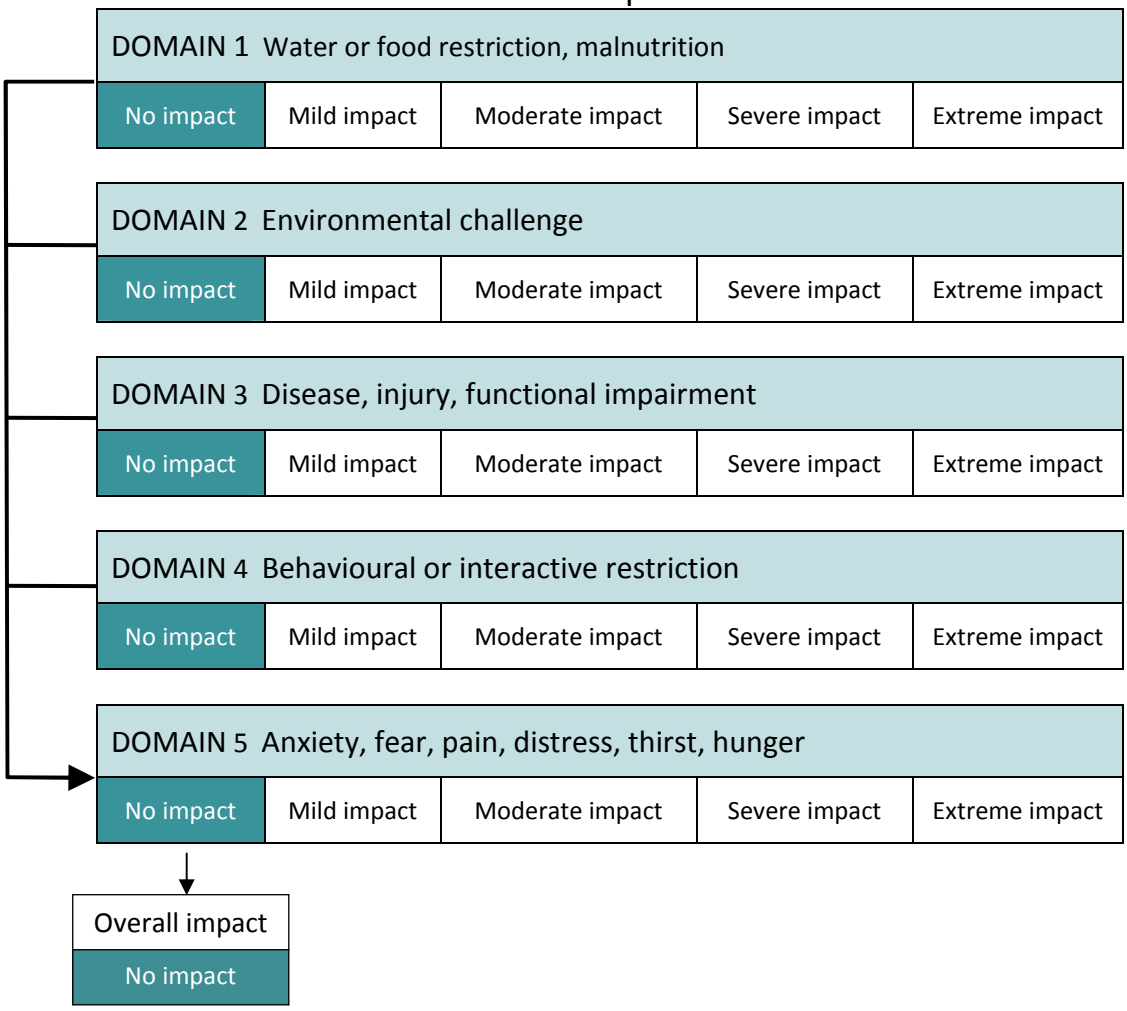
Control method: Baiting of foxes with 1080

Assumptions:	▪ There is no difference in welfare impact between ground and aerial baiting so they are assessed here together. ▪ Best practice is followed in accordance with the standard operating procedures FOX001 and FOX002. ▪ Assumes that baiting is avoided during whelping periods in accordance with the SOP.

PART A: assessment of overall welfare impact



DURATION OF IMPACT				
Immediate to seconds	Minutes	Hours	Days	Weeks

SCORE FOR PART A:	1
Summary of evidence:	Note that Part A of the assessment examines the 'impact on the animal prior to the action that causes death'. Part B then looks at the 'actual mode of death' and the 'extent and duration of suffering caused'. With ingestion of lethal toxic baits there is usually or no impact in Part A.
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.
Domain 5	No impact in this domain.

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:	
Summary of evidence:	
Duration –	After a fox has ingested a bait containing 1080 there is a latent period of around 30 minutes to 3 hours before initial signs such as hyperexcitability, vocalisation, manic running and retching are observed. Signs of central nervous system disturbance including collapse, convulsions and tetanic spasms, then follow. Death occurs usually about two hours after the onset of clinical signs. A study involving oral dosing of dingoes with 1080, recorded latent periods of 4.8-14.6 hours and time until death in the range of 5.3-10.8 hours[1]. In an experimental study of foxes dosed with 1080 in meat baits, there was a mean time of 4.05 hours between dosage and onset of clinical signs and a mean of 1.57 hours from onset of clinical signs until death[2].

Suffering –	The latent period is likely to be associated with minimal pain or distress[3, 2, 4]. After the onset of clinical signs when animals are retching, displaying manic running and there is little or no CNS disturbance, it is likely that they will suffer and could experience distress, confusion, anxiety and pain[2]. In the later stages, when severe CNS dysfunction has developed, it is unknown if animals are perceiving pain. The objective assessment of pain by an observer is difficult since CNS disruption appears to alter the normal behavioural indicators of pain[2]. Also, perception of pain by the animal requires that it is conscious[5]. With 1080 poisoning it is difficult to assess if animals are conscious after collapse and during convulsive episodes[3]. During periods of prolonged convulsions it is possible that animals are lucid between fits. If animals *are* conscious during the convulsive episodes or if they become conscious afterwards it is possible that they may experience pain and/or anxiety. There is also potential for injuries to occur after the appearance of clinical signs.

Summary

CONTROL METHOD:	**Baiting of foxes with 1080**
OVERALL HUMANENESS SCORE:	**1E-F**

Comments

In human cases of 1080 poisoning, initial symptoms include nausea, vomiting and abdominal pain followed by anxiety, agitation, muscle spasm, stupor, seizure and coma. Respiratory distress is also prevalent in fatal cases[6].

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