

Mohua monitoring in the Blue Mountains (Southland) November 2025

Updated report for 2025 written by s9(2)(g)(ii) and s9(2)(g)(ii) s9(2)(g)(ii)

This report was originally written in 2007 by s9(2)(g)(ii) but has been updated overtime to reflect the annual survey results collected each year.

Summary

The annual Blue Mountains mohua monitoring was conducted on the 1st - 3rd November 2025 by s9(2)(g)(ii) s9(2)(g)(ii) The three established and fixed transect monitoring lines (Garden Gully, Rankleburn, and Cattle Spur) were each surveyed three times over this period, with the aim of the survey being to gain an accurate picture of the mohua population trend within the monitoring area as a proxy for the wider Blue Mountains.

When comparing the average (mean) results from November's measurement to previous years, the average number of mohua counted per transect are the lowest counts to date. This is consistent with the overall long-term trend, with a few outlier years, of a steady decline in the area. With a potential mast predicted for the 2025/2026 summer season, and the expected mammalian predator upswing as a result, this is a concerning state for the Mohua to be in.

It should be noted that this trip was taken a week after a heavy storm hit the area, creating a large swathe of treefall in the area.

	2021	2022	2023	2024	2025
<i>Garden Gully</i>	48	30	24	53.7	18.7
<i>Rankleburn</i>	28	17	14	17.3	10.3
<i>Cattle Spur</i>	09	07	02	02.3	01.3

Background

The Blue Mountains Forest Conservation Area (12,400 ha) lies between the Clutha River and the township of Tapanui, approximately 115 kilometres northeast of Invercargill. The Blue Mountains range varies in altitude from 100 m near the Pomahaka River to 1020 m at the summit of the main ridge. The vegetation is predominantly silver beech, with podocarps in some gullies and some red beech on the eastern side on the Clutha Valley floor. The tops of the Blue Mountains have alpine snow tussock and alpine cushion bog wetlands associated with numerous tarns.

Forestry company Earnslaw One manages a large area of exotic forest on the eastern side of the Blue Mountains, of mainly *Pinus radiata* and Douglas fir. Access to the eastern side of the Blue Mountains

and the mohua monitoring lines is relatively easy via forestry roads. Access to the western side of the range is via private farmland. The Blue Mountains Forest Conservation Area is managed as a Recreational Hunting Area (RHA) for fallow deer (*Dama dama*), and pigs are also present. Red deer (*Cervus elephus*) are uncommon.

The Blue Mountains are home to one of the four largest remaining populations of Mohua, along with the Dart and Landsborough valleys, and the Catlins (Elliot, 2013). Mohua, or yellowheads (*Mohoua ochrocephala*) are small, insectivorous songbirds that reside exclusively in native forest (Gaze 1985). Mohua are endemic to the South Island and used to be widespread throughout the South Island; one observation in 1888 described a flock of 200 in the Lake Brunner district (Smith 1888). Their numbers were noticed to be declining in the early 1900's and they are now absent from over 75% of their former range (Gaze 1985). The current population is estimated to be c. 5000 individuals and conservation status is "At Risk, Declining" (Robertson et al. 2017). Mohua are cavity nesters and are particularly vulnerable to predation by rats and stoats. Predation of mohua nests often results in the loss of not just the eggs but also the adult female (Elliot 1996).

In 2019, extensive seed sampling across New Zealand indicated the biggest beech mast in over forty years, with heavy seeding of Rimu and tussock as well (DOC media release 2019). Masting events can cause an increase in rodent numbers. Stoat populations respond to the increase in rodent prey with increased survival of young stoats. This increase in rodent and stoat numbers causes increased predation pressure on native birds (King, 1983, Clapperton et al. 2019). The increase in predation during mast years by stoats and rats on mohua and their nests have led to dramatic declines in mohua populations (Elliot 1996). The timing of mohua nesting makes them particularly vulnerable to predation, as the fledging of many first clutches and the laying of second clutches coincides with a peak in the number of stoats (O'Donnell et al. 1996). Ongoing monitoring is especially important with ongoing climate change. Mast events are more likely to occur when a given years summer is warmer than the previous year before it, so increasing temperatures are also likely to increase masting events, further increasing predation pressure on Mohua (Tompkins et al., 2013).

Blue Mountains Monitoring Programme

The Blue Mountains monitoring area covers 2,800 ha of the southern (Rankleburn) area of the Blue Mountains Forest (Fig. 1). This is the area where mohua are concentrated. The monitoring programme is run from the Murihiku/Invercargill Office. Three transect lines covering about 15 km and representative of the Blue Mountains monitoring area have been monitored annually for mohua since the 1980s. Monitoring (Fig. 5) suggest a decline in the population from 1998, followed by some recovery since 2005 and a decline since 2016. Overall, there has been a population decline in the Rankleburn and Cattle Spur areas since the 1990s. However, the higher counts in the 1990s may be due to different methods used for the counts (e.g. squeakers to call birds in). Also, other variables such as weather conditions were not recorded in early years. (Collen, 2007). Annual survey methods have been standardised and documented since 2008 to determine current mohua population trends in the Blue Mountains.

Beech seed fall has been monitored in the Blue Mountains since 2005 using a network of seed collection funnels. To monitor the relative abundance of rodents and mustelids, fifteen tracking tunnel lines were also established and are operated quarterly in February, May, August, and November. In 2025, cameras were installed along these tracking tunnel lines to complement existing monitoring and improve detection of predator activity. The locations of all monitoring lines are shown in Figure 1.

Beech mast events have been recorded in the Blue Mountains in 2006, 2009, 2014, 2016, 2017, 2019, and 2024, and Department of Conservation climate modelling predicts a light mast for the 2025/2026 summer season. In response to previous mast-driven predator increases, aerial applications of sodium fluoroacetate (1080) were undertaken in December 2014 and 2019 during the wider Battle for our Birds campaign. A further 1080 operation planned after the 2016 mast was cancelled due to winter tracking tunnel results indicating that rat numbers had not increased significantly. Another operation was scheduled for spring 2025.

Between mid-May and July 2024, DOC trialled a new toxic bait for stoats in the Blue Mountains, West Otago. The approximately 1000 ha treatment area included the Rankleburn. Monitoring indicated that the relative abundance of stoats declined following the toxin application (DOC 7841242).

Methods

Three mohua monitoring transects, shown in Figure 1, were surveyed by [REDACTED] s9(2)(g)(ii), and [REDACTED] s9(2)(g)(ii) from the 1st – 3rd November 2025. This timing was consistent with that of previous surveys and was selected to coincide with the territorial pre-nesting season of mohua. Each of these transects was surveyed three times during predominantly fine weather. The transects were walked in different directions on different days to mitigate for changes in activity due to time of day at different track sections.

Note: The weather on day 2 was considerably poorer than the other two days. While still within acceptable parameters for bird counts, it had a noticeable effect on the scores for that day.

The survey methods were the same as for previous years 2007-2024, using the protocol for fixed transect counts of mohua described in O'Donnell & Elliott ([OLDDM-573015](#)). Each transect was walked at the speed of approximately 1km per hour between 0900 and 1600. Observers listened and watched for mohua. They did not use taped calls or squeakers to elicit responses from the birds. On detection of mohua up to (approximately) 10 minutes was spent attempting to get visual confirmation and determining the precise location and number of birds in the group. The number of birds seen or heard, and their sex (if known) was recorded, and the location recorded with a GPS waypoint. If a bird was heard in the far distance (more than a 10-minute walk from the transect) the observer counted the bird(s) and marked a waypoint at its estimated position.

Each group of mohua was counted separately and every effort was made to ensure that the individuals were not counted twice by being aware of the direction the birds were moving in and continually listening to adjacent mohua calls. All observers had training identifying mohua by their calls, physical appearance, and behaviours.

Results

The surveys were conducted over three good weather days. The weather was warm with light winds picking up occasionally over the survey's duration. Results from the three transects are shown in table 1. The full set of 2025 data can be found in the Excel spreadsheet (DOC-10626539).

Table 1. Results of 2025 mohua transect survey.

Transect name	Length (km)	Date	Groups	Males	Females	Total birds	Mohua/km	Time taken	Weather conditions
Garden Gully	3.6	01/11/25	18	11	4	20	5.5	3 hr 18 min	Good
		02/11/25	10	14	0	14	3.8	4 hr 20 min	Poor
		03/11/25	15	18	4	22	6.1	4 hr 00 min	Good
		mean	14.3	14.3	2.7	18.7	5.1	3 hr 52 min	
Rankleburn	6.2	01/11/25	11	11	1	12	1.9	5 hr 07 min	Good
		02/11/25	4	4	0	5	0.8	6 hr 00 min	Poor
		03/11/25	9	12	2	14	2.3	5 hr 00 min	Good
		Mean	8	9	1	10.3	1.7	5 hr 22 min	
Cattle Spur	5.3	01/11/25	1	1	0	1	0.2	4 hr 30 min	Good
		02/11/25	0	0	0	0	0.0	6 hr 30 min	Good
		03/11/25	2	2	1	3	0.6	5 hr 19 min	Good
		mean	1.3	0.7	0	2	0.3	5 hr 26 min	

Mohua were found along the length of the Garden Gully transect and along the northern half of the Rankleburn transect on all 3 survey days. Mohua were only heard on two of the survey days on the Cattle spur transect, and only seen once (two birds, start of the transect). They were heard at the very beginning, and end, of the cattle spur transect. Groups spotted in the 2025 survey are indicated in figure 2

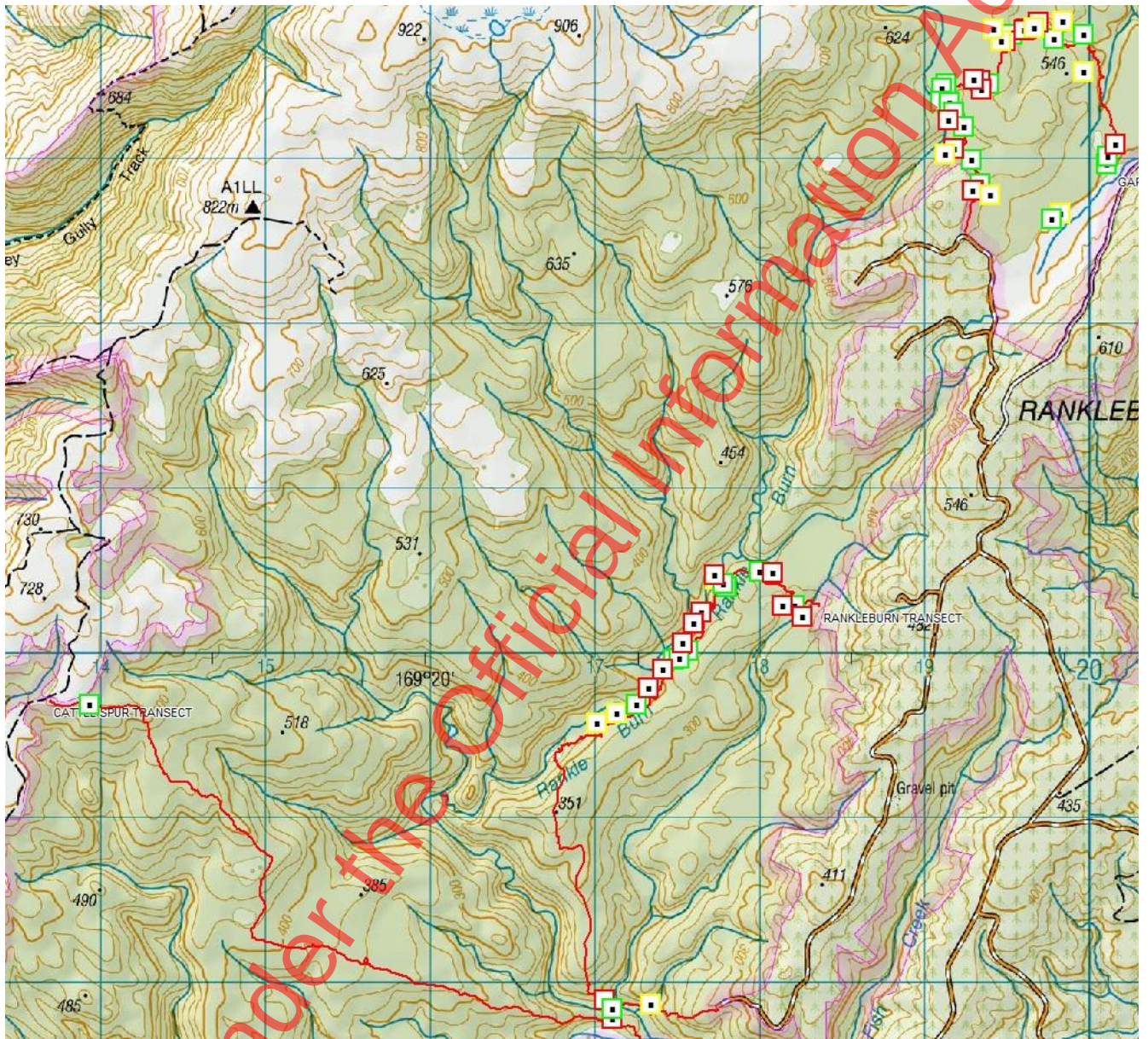


Figure 2. Locations of mohua transect lines (red) and mohua group observation records (squares) from the 2025 transect survey. Each point indicates an observation of a group. The different colours represent three different days of the survey. Red is Day 1, Yellow is Day 2, Green is Day 3.

Since 2007, the average number of Mohua detected on each transect has fluctuated. In Garden Gully there was an upward trend in number of birds and groups detected until 2016, then a decline until 2019. The 2021 count indicated the recovery seen in 2020 may be continuing, but surveys in 2022, 2023, and 2025 indicate further decline again.

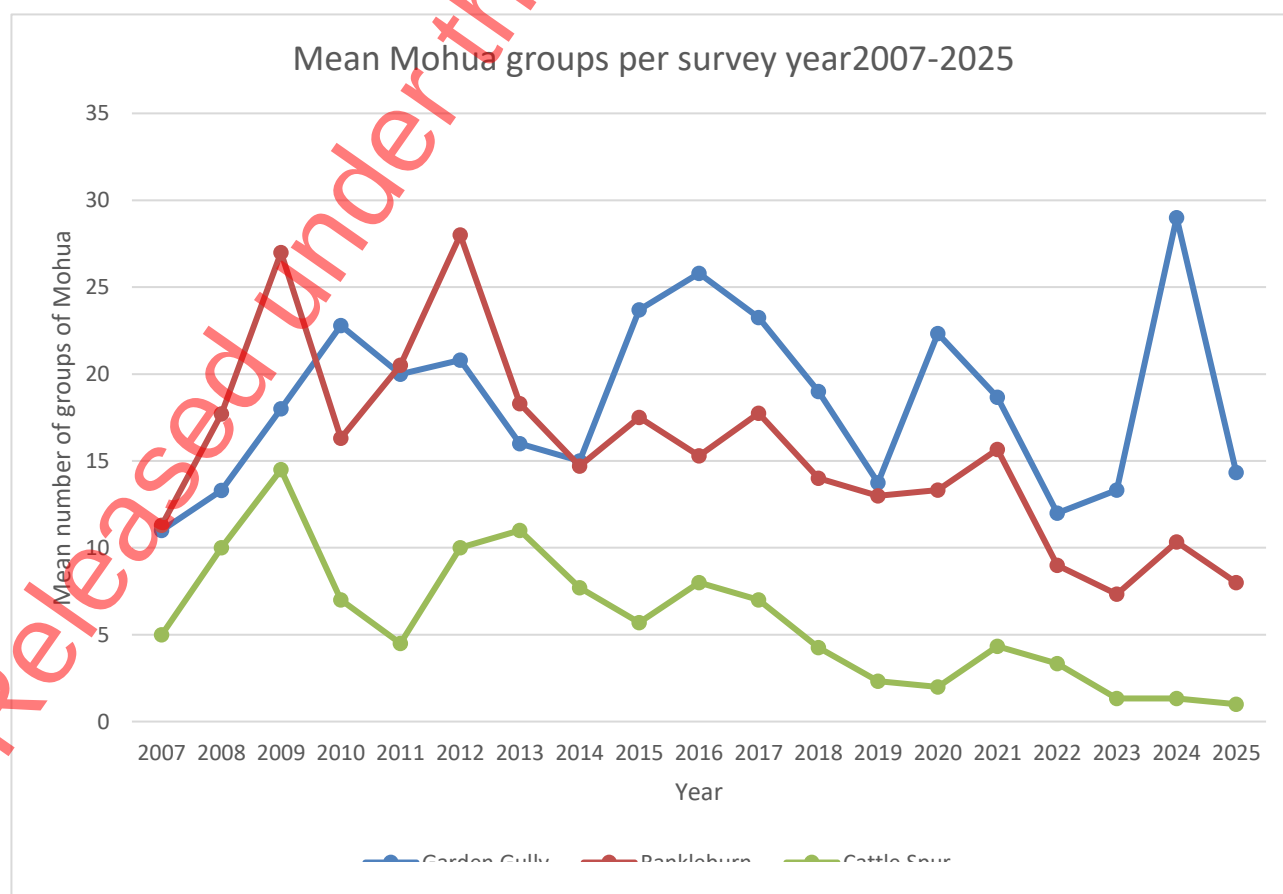
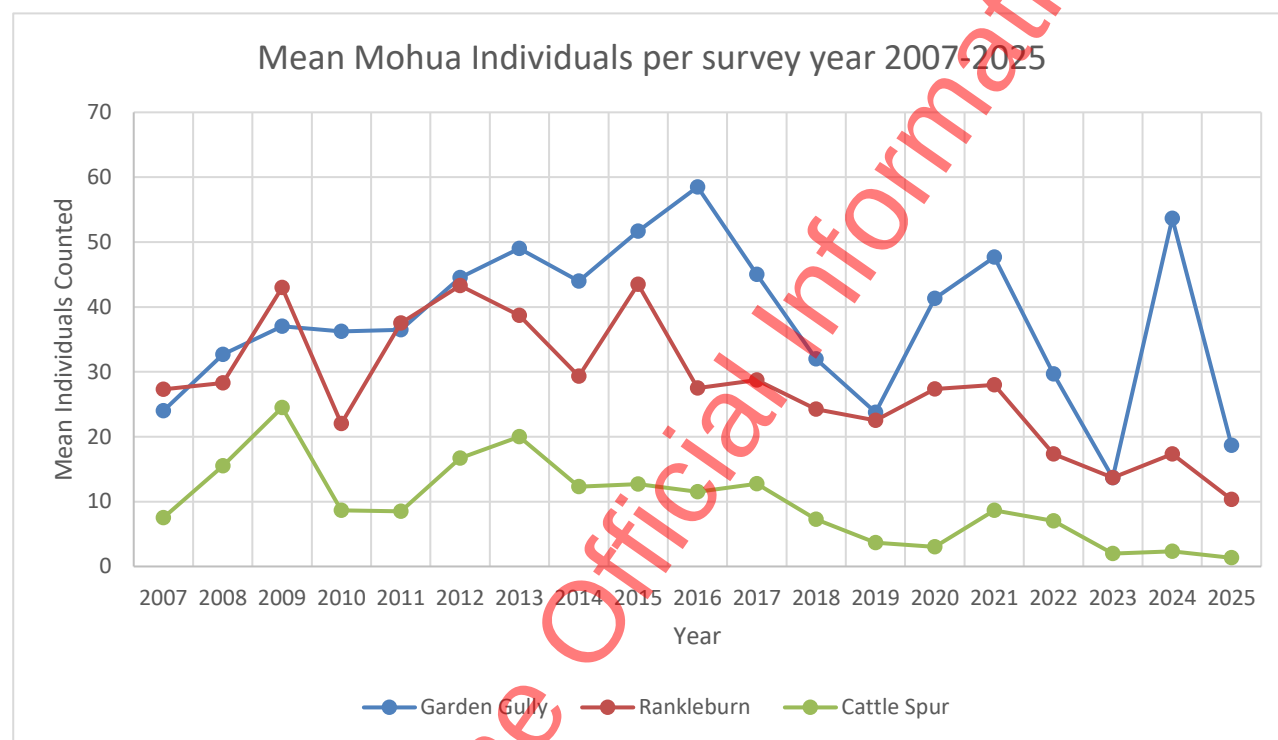


Figure 3. Average number of mohua and groups detected on each transect between 2007 and 2025

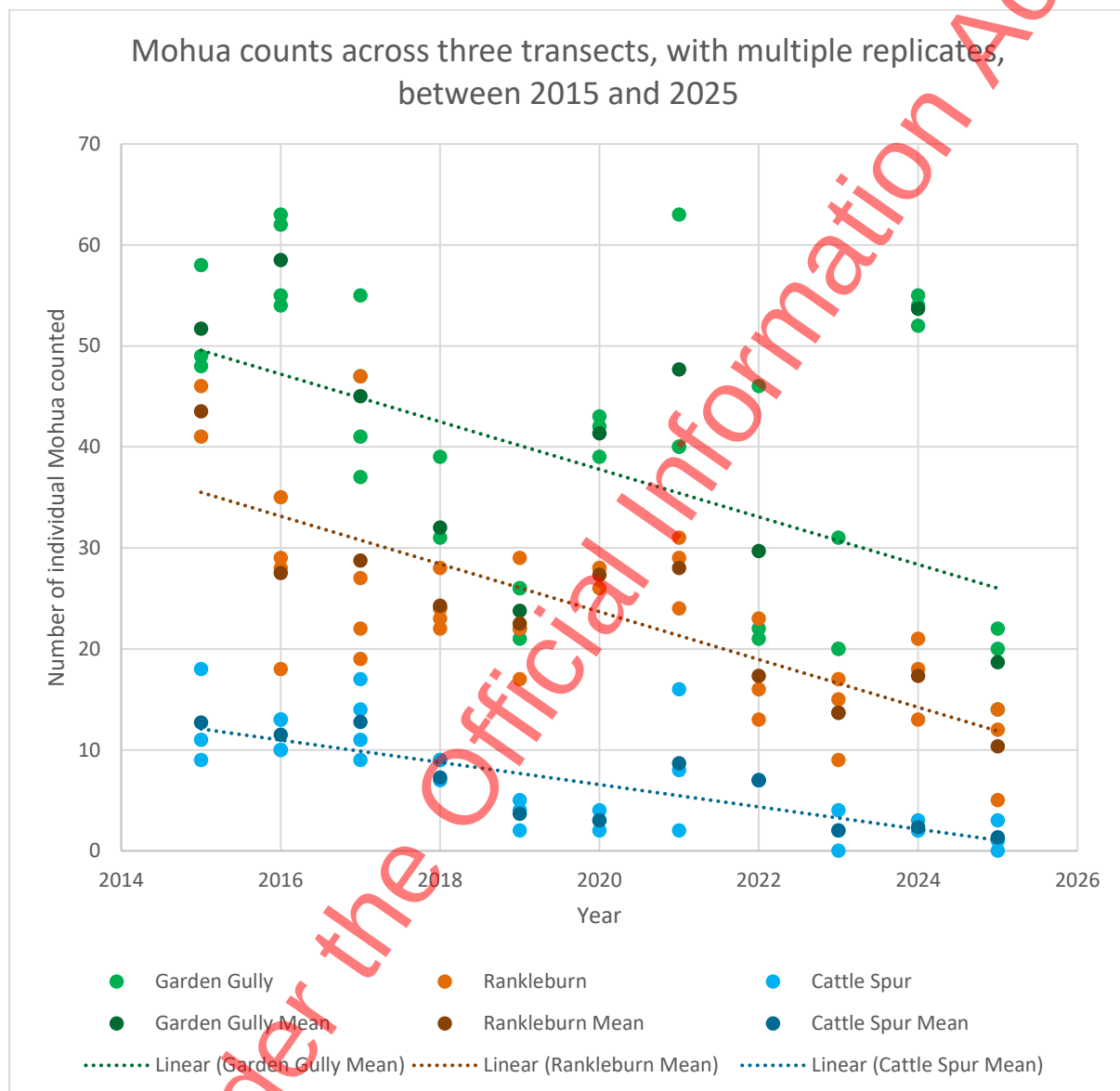


Figure 4. Mohua individual counts across three transects (Garden Gully, Rankleburn, Cattle Spur) split between replicates, over a ten-year span (2015 to 2025). Mean of replicates shown in darker colour

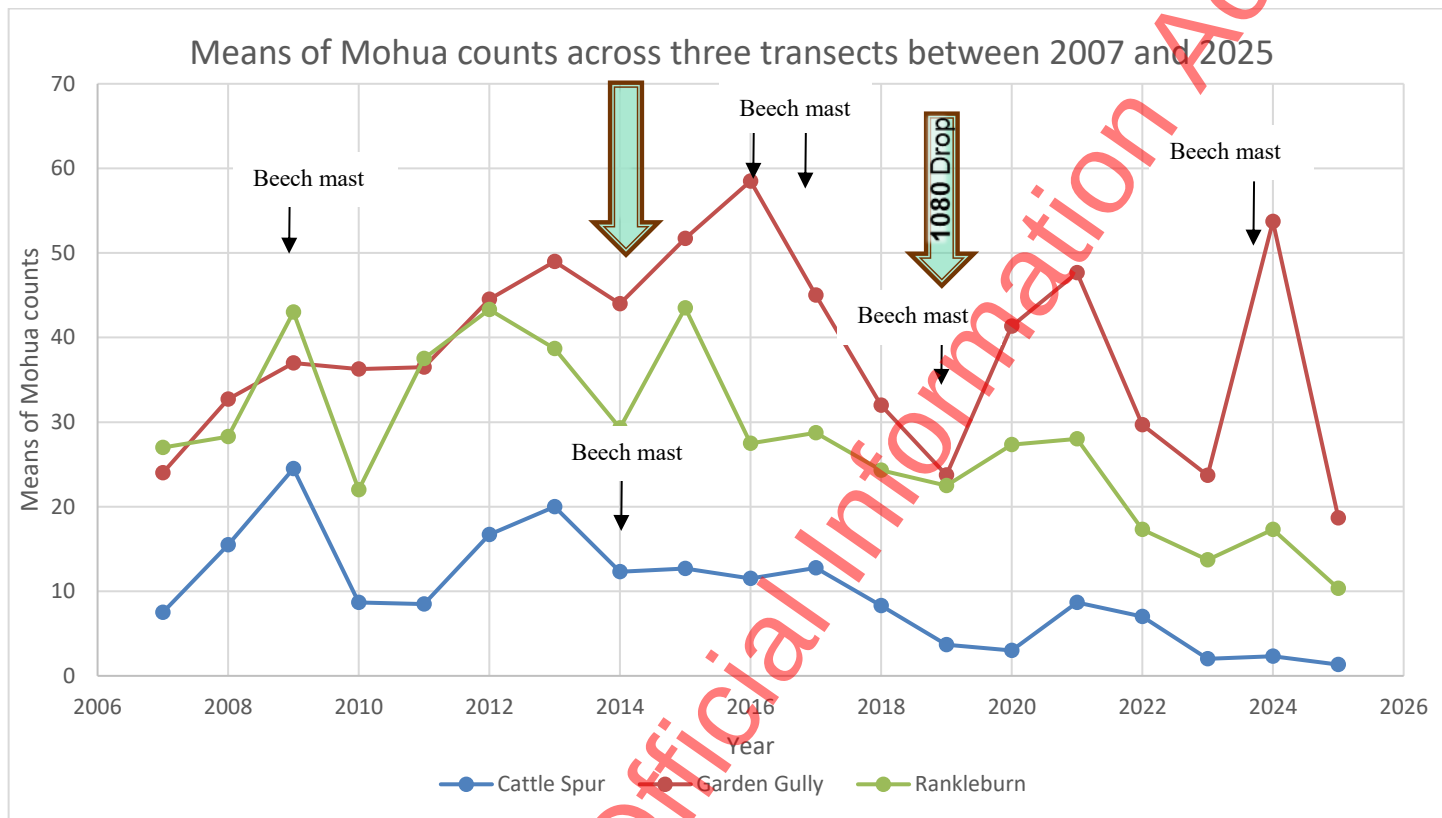


Figure 5. Mean Mohua counts across three transects (Garden Gully, Cattle Spur, Rankleburn) from 2007 to 2025. Known Beech masts and 1080 drops marked.

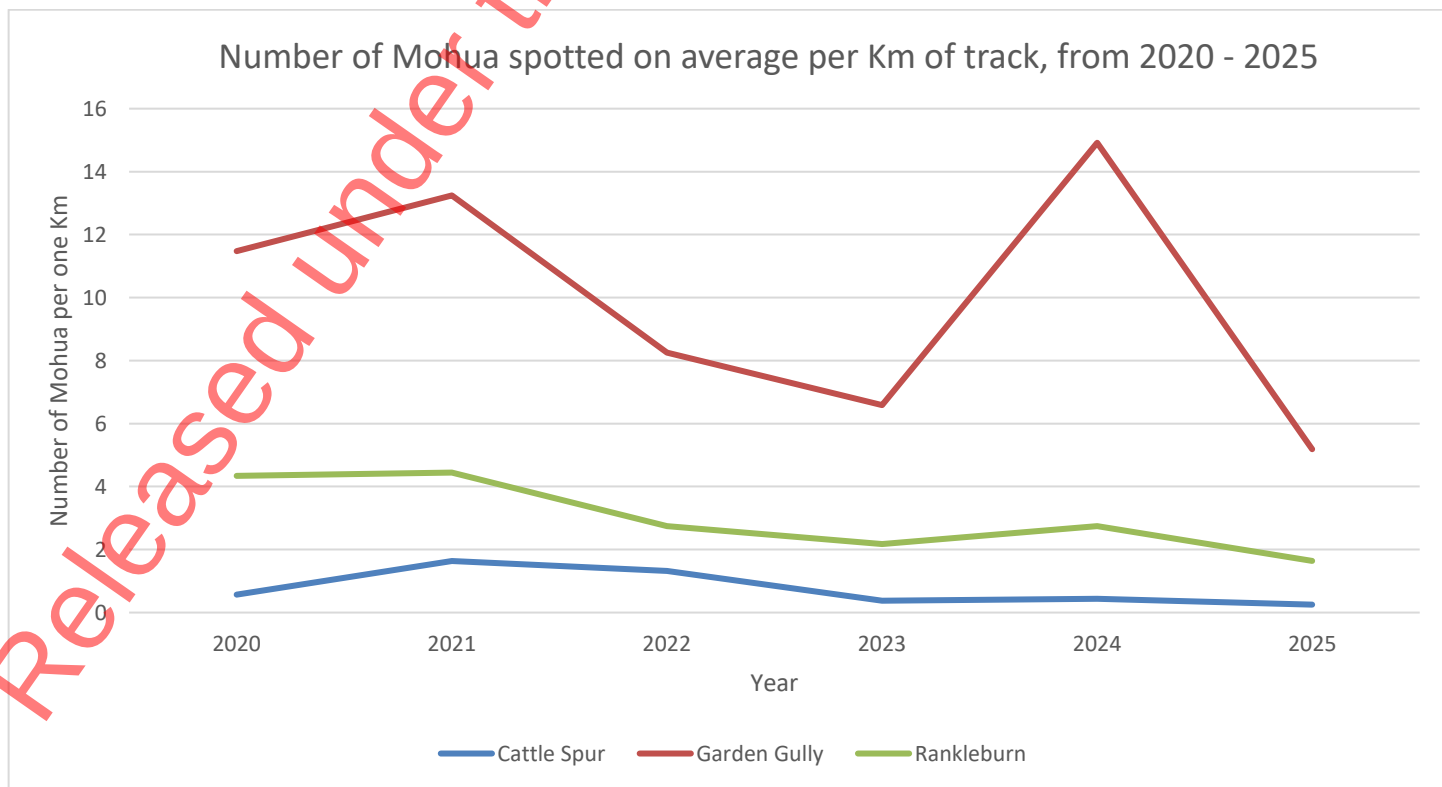


Figure 6: Mean Mohua counts per kilometre across three transects (Gardn Gully, Cattle Spur, Rankleburn) over 5 years.

Discussion

Following the declines observed between 2016 and 2019 (Figure 5), mohua detections increased across all three transects in 2020 and again in 2021, consistent with the expected short-term benefits of the 2019 aerial 1080 operation, which likely reduced predator pressure during the subsequent breeding seasons. However, detections dropped again in 2022, 2023, and 2025, with reductions evident in both individuals and group counts (Figures 3 and 4). The Mohua-per-kilometre index shows a similar pattern, with all transects exhibiting a sustained decline over the last five years (Figure 6), indicating that the downward trend is broad-scale rather than driven by any single line.

The 2024 survey produced a temporary spike in detections that was not maintained in 2025. The cause of this short-term increase is unclear. It may reflect localised predator suppression arising from the 2024 stoat toxic-bait trial in the Rankleburn area or natural variability in detectability, but the lack of persistence suggests that underlying pressures on the population remain.

Mohua numbers in the Blue Mountains have fluctuated over the last 30 years. Note that between 1990 and 2000 different methods were used to illicit a response (squeakers). The 2003-2007 data points for Cattle Spur are inconsistent due to the transect line being shortened temporarily (Figure 5).

Another variable that may have been overlooked in early reports is the translocation of birds. 40 birds from Garden gully, and 5 from Cattle spur were translocated in 1995. 27 birds were translocated in 2001 from Garden gully and Cattle spur. 21 birds were translocated from Garden gully in 2013.

The timing of this year's count was in the first week of November. This is consistent with previous years counts, where the measures have occurred either in the last week of October or the first week of November. Weather conditions were favourable on two of the three days; however, Day 2 experienced showers and increased wind, and counts on that day were noticeably lower. Although still within acceptable survey conditions, this likely contributed to a lower overall mean for 2025.

Since 2007 the mohua transect surveys on Garden Gully and Rankleburn surveys have mostly shown a trend of stable population or increase, followed by a single season decline after beech mast years (e.g. 2009, 2014). Between the 2016 mast and 2019 the population did not follow this trend of recovery after a mast, and instead continued to decline (Bogisch, 2020; Bogisch 2021). The beech mast in 2019 was followed by a 1080 operation, and in 2021 the mohua population was showing signs of recovery on all three transects. However, the past 5 survey years (2021- 2025) indicate a trend of steady decline in Mohua counts along all three transects.

The 2022 mast occurred without an accompanying 1080 operation, which may have contributed to increased predator pressure and the subsequent population declines observed in 2022–2025. With another mast predicted for the 2025/2026 summer and a scheduled 1080 operation planned, timely

predator management may be crucial in preventing further declines. Spatial patterns provide further evidence of contraction.

Recommendations

1. Repeat the annual transect surveys in October/November 2026 and subsequent years using the methods described in this report to continue to monitor mohua population trends. Provide a detailed report after each survey that includes explanation of any variables such as weather, observer experience etc. that may have affected the results of the counts.
2. Continued monitoring of seed fall and small mammal index results for informed population management.
3. Carry out the 5 yearly mohua distribution survey. There have been four major beech masts since the last distribution survey was conducted in 2008. The counts on the Cattle Spur transect have declined significantly since 2008. Carrying out distribution surveys would provide greater certainty about the status of the mohua population in the Blue Mountains.

References and related reports

Blue Mountains Home Page: [DOCDM-630153](#) (links to previous mohua monitoring reports and data)

Blue Mountains mohua survey data 1990 onwards [DOCDM-275173](#)

s9(2)(g)(ii) M. 2020: Mohua monitoring in the Blue Mountains (Southland) November 2019. Unpublished report to the Department of Conservation, Invercargill, April 2020. ([DOC-6412843](#))

s9(2)(g)(ii) M. 2021: Mohua monitoring in the Blue Mountains (Southland) October 2020. Unpublished report to the Department of Conservation, Invercargill, April 2021. ([DOC-6644495](#))

Clapperton, B. K., Maddigan, F., Chinn, W., & Murphy, E. C. (2019). Diet, population structure and breeding of *Rattus rattus* L. in South Island beech forest. *New Zealand Journal of Ecology*, 43(2), 1-8.

s9(2)(g)(ii) 2007: Mohua monitoring in the Blue Mountains November 2007. Unpublished report to the Department of Conservation, Invercargill, March 2008. [DOCDM-269009](#)

s9(2)(g)(ii) 2009: Mohua surveys in the Blue Mountains Oct - Nov 2008. Unpublished report to the Department of Conservation, Invercargill, February 2009. [DOCDM-398476](#)

s9(2)(g)(ii) 2016: Mohua surveys in the Blue Mountains Oct 2016. Unpublished report to the Department of Conservation, Invercargill, November 2016. [DOC-2910222](#)

Dilks, P., Sjöberg, T., & Murphy, E. C. (2020). Effectiveness of aerial 1080 for control of mammal pests in the Blue Mountains, *New Zealand Journal of Ecology*, 44(2), 1-3

DOC media release (2019) <https://www.doc.govt.nz/news/media-releases/2019/mega-mast-confirmed-for-new-zealand-forests/>

Elliott, G.P., O'Donnell, C. (1988) Recent decline in yellowhead populations. Science & Research internal report 29. Wellington, New Zealand. Department of Conservation.

Elliott, G.P. (1996) Productivity and mortality of mohua (*Mohoua ochrocephala*), *New Zealand Journal of Zoology*, 23:3, 229-237, DOI: 10.1080/03014223.1996.9518082

Elliott G.P. (1996) Mohua and stoats: A population viability analysis, *New Zealand Journal of Zoology*, 23:3, 239-247, DOI: 10.1080/03014223.1996.9518083

Elliott, G.P. (2013) [updated 2020]. Yellowhead. In Miskelly, C.M. (ed.) *New Zealand Birds Online*. www.nzbirdsonline.org.nz

Gaze, P.D. (1985). Distribution of yellowheads (*Mohoua ochrocephala*) in New Zealand. *Notornis* 32: 261-269.

King, C. M. (1983). The relationships between beech seedfall and populations of mice, and the demographic and dietary responses of stoats, in three New Zealand forests. *Journal of Animal Ecology*, 52(1), 141-166.

s9(2)(g)(ii) (2019) Mohua monitoring in the Blue Mountains (Southland) November 2018. Unpublished report to the Department of Conservation, Invercargill, May 2019. [DOC-5938233](#)

O'Donnell, C. F. J., Elliott, G.P. (2007) Fixed transect counts of mohua (yellowhead) in forest. Department of Conservation, Invercargill, May 2007. [OLDDM-573015](#)

O'Donnell, C. F. J., Dilks, P. J., Elliott, G. P. (1996) Control of a stoat (*Mustela erminea*) population irruption to enhance mohua (yellowhead) (*Mohoua ochrocephala*) breeding success in New Zealand, New Zealand Journal of Zoology, 23:3, 279-286, DOI: [10.1080/03014223.1996.9518086](#)

Robertson, H.A., Baird, K., Dowding, J.E., Elliott, G.P., Hitchmough, R.A., Miskelly, C.M., McArthur, N., O'Donnell, C.F.J., Sagar, P.M., Scofield, R.P., Taylor, G.A. (2017). Conservation status of New Zealand birds, 2016. New Zealand Threat Classification Series 19. Wellington, Department of Conservation, p.27.

Smith, W.W. 1888: On the birds of Lake Brunner District. Transactions of the New Zealand Institute 21: 205-24

Tompkins, D.M., Byrom, A.E. and Pech, R.P. (2013), Predicted responses of invasive mammal communities to climate-related changes in mast frequency in forest ecosystems. *Ecological Applications*, 23: 1075-1085. <https://doi.org/10.1890/12-0915.1>

s9(2)(g)(ii) 2022: Mohua monitoring in the Blue Mountains (Southland) November 2022. Unpublished report to the Department of Conservation, Invercargill, April 2023. (DOC-7203041)

s9(2)(g)(ii) Project update: Readymade stoat bait trial Blue Mountains 2024 Unpublished report to the Department of Conservation, Invercargill, December 2024. (DOC-7841242)

Appendix 1: Results of mohua transect counts in the Blue Mountains 1990 – 2023

(data from [docdm-275173](#)).

YEAR	DATE	MONTH	AREA	LOCATION	LINE	COUNT METHOD	COUNT	NOTES
1990		Dec	MURIH.	BLUE MTNS	Cattle Spur	transect		no count recorded
1991		Dec	MURIH.	BLUE MTNS	Cattle Spur	transect		no count recorded
1993		Dec	MURIH.	BLUE MTNS	Cattle Spur	transect	13	G. Rasch, obs error & time c
1994		Nov.	MURIH.	BLUE MTNS	Cattle Spur	transect	50	
1995		Nov.	MURIH.	BLUE MTNS	Cattle Spur	transect	82	5 birds transferred to Bro
1996		Nov.	MURIH.	BLUE MTNS	Cattle Spur	transect	50	spring after the "big freeze"
1997		Nov.	MURIH.	BLUE MTNS	Cattle Spur	transect	54	notional total – two days/se
1998		Nov.	MURIH.	BLUE MTNS	Cattle Spur	transect	42	
1999		Nov.	MURIH.	BLUE MTNS	Cattle Spur	transect	54	
2000		Nov.	MURIH.	BLUE MTNS	Cattle Spur	transect	27	27 birds (mixed age/sex)
2003		Oct	MURIH.	BLUE MTNS	Cattle Spur	transect	5.75	2001. average of 4 days? Transect
2004		Oct	MURIH.	BLUE MTNS	Cattle Spur	transect	2	average of 4 days
2005		Oct	MURIH.	BLUE MTNS	Cattle Spur	transect	4	average of 4 days
2007	25-12	Oct/Nov	MURIH.	BLUE MTNS	Cattle Spur	transect	7.5	average of 2 days
2008	21-28	Oct	MURIH.	BLUE MTNS	Cattle Spur	transect	15.5	average of 2 days. Transect
2009	20-28	Oct	MURIH.	BLUE MTNS	Cattle Spur	transect	24.5	average of 2 days
2010	26-10	Oct/Nov	MURIH.	BLUE MTNS	Cattle Spur	transect	8.67	average of 3 days
2011	27-29	Oct	MURIH.	BLUE MTNS	Cattle Spur	transect	8.5	average of 2 days
2012	17-31	Oct	MURIH.	BLUE MTNS	Cattle Spur	transect	16.7	average of 3 days
2013	15-17	Oct	MURIH.	BLUE MTNS	Cattle Spur	transect	20	average of 2 days
2014	22-6	Oct/Nov	MURIH.	BLUE MTNS	Cattle Spur	transect	12.3	average of 3 days
2015	20-25	Oct	MURIH.	BLUE MTNS	Cattle Spur	transect	12.7	average of 3 days, marginal
2016	20-27	Oct	MURIH.	BLUE MTNS	Cattle Spur	transect	11.5	average of 4 days
2017	29-1	Oct/Nov	MURIH.	BLUE MTNS	Cattle Spur	transect	12.75	average of 4 days
2018	22-25	Nov.	MURIH.	BLUE MTNS	Cattle Spur	transect	8.3	average of 3 days
2019	31-3	Oct/Nov	MURIH.	BLUE MTNS	Cattle Spur	transect	3.67	average of 3 days (windy)
2020	28-30	Oct.	MURIH.	BLUE MTNS	Cattle Spur	transect	3	average of 3 days
2021	3-5	Nov.	MURIH.	BLUE MTNS	Cattle Spur	transect	8.67	average of 3 days
2022	30-1	Oct/Nov	MURIH.	BLUE MTNS	Cattle Spur	transect	7	average of 3 days
2023	10-12	Nov.	MURIH.	BLUE MTNS	Cattle Spur	transect	2	average of 3 days

2024	5-7	Nov.	MURIH.	BLUE MTNS	Cattle Spur	transect	2.3	average of 3 days
2025	1-3	Nov.	MURIH.	BLUE MTNS	Cattle Spur	transect	1.33	average of 3 days
1990		Dec	MURIH.	BLUE MTNS	Garden Gully	transect	34	a low count, not all birds fo
1991		Dec	MURIH.	BLUE MTNS	Garden Gully	transect	33	
1993		Dec	MURIH.	BLUE MTNS	Garden Gully	transect	40	G. Rasch, obs error & time o
1994		Nov.	MURIH.	BLUE MTNS	Garden Gully	transect	54	
1995		Nov.	MURIH.	BLUE MTNS	Garden Gully	transect	27	
1996		Nov.	MURIH.	BLUE MTNS	Garden Gully	transect	29	
1997		Nov.	MURIH.	BLUE MTNS	Garden Gully	transect	53	
1998		Nov.	MURIH.	BLUE MTNS	Garden Gully	transect	52	
1999		Nov.	MURIH.	BLUE MTNS	Garden Gully	transect	33.2	nesting underway
2000		Nov.	MURIH.	BLUE MTNS	Garden Gully	transect	28	
2003		Oct	MURIH.	BLUE MTNS	Garden Gully	transect	10.5	average of 4 days?
2004		Nov.	MURIH.	BLUE MTNS	Garden Gully	transect	16	average of 4 days
2005		Oct	MURIH.	BLUE MTNS	Garden Gully	transect	17.75	average of 4 days
2007	25-12	Oct/Nov	MURIH.	BLUE MTNS	Garden Gully	transect	24	average of 3 days
2008	21-28	Oct	MURIH.	BLUE MTNS	Garden Gully	transect	32.7	average of 3 days
2009	20-28	Oct	MURIH.	BLUE MTNS	Garden Gully	transect	37	average of 2 days
2010	26-10	Oct/Nov	MURIH.	BLUE MTNS	Garden Gully	transect	36.25	average of 4 days
2011	27-29	Oct	MURIH.	BLUE MTNS	Garden Gully	transect	36.5	average of 2 days
2012	17-31	Oct	MURIH.	BLUE MTNS	Garden Gully	transect	44.5	average of 4 days
2013	15-17	Oct	MURIH.	BLUE MTNS	Garden Gully	transect	49	average of 3 days
2014	22-6	Oct/Nov	MURIH.	BLUE MTNS	Garden Gully	transect	44	average of 3 days
2015	20-25	Oct	MURIH.	BLUE MTNS	Garden Gully	transect	51.7	average of 3 days (2 days m
2016	20-27	Oct	MURIH.	BLUE MTNS	Garden Gully	transect	58.5	average of 4 days
2017	29-1	Oct/Nov	MURIH.	BLUE MTNS	Garden Gully	transect	45	average of 4 days
2020	31-2	Oct/Nov	MURIH.	BLUE MTNS	Garden Gully	transect	41.33	average of 3 days
2021	3-5	Nov.	MURIH.	BLUE MTNS	Garden Gully	transect	47.67	average of 3 days
2022	30-1	Oct/Nov	MURIH.	BLUE MTNS	Garden Gully	transect	29.67	average of 3 days
2023	10-12	Nov.	MURIH.	BLUE MTNS	Garden Gully	transect	23.70	average of 3 days
1990		Nov.	MURIH.	BLUE MTNS	Rankleburn	transect	83.00	7.2 km line – different from c
1991		Dec	MURIH.	BLUE MTNS	Rankleburn	transect	57.00	4.5 km – appears similar to c
1993		Dec	MURIH.	BLUE MTNS	Rankleburn	transect	11.00	G. Rasch, obs error & time of

1994		Nov.	MURIH.	BLUE	Rankleburn	transect	74.00	
				MTNS				
1995		Nov.	MURIH.	BLUE	Rankleburn	transect	82.00	
				MTNS				
1996		Nov.	MURIH.	BLUE	Rankleburn	transect	52.00	spring after the "big freeze"
				MTNS				
1997		Nov.	MURIH.	BLUE	Rankleburn	transect	47.00	less than 66% of lines counted
				MTNS				
1998		Nov.	MURIH.	BLUE	Rankleburn	transect	46.00	
				MTNS				
1999		Nov.	MURIH.	BLUE	Rankleburn	transect	37.00	nesting underway
				MTNS				
2000		Nov.	MURIH.	BLUE	Rankleburn	transect	29.00	
				MTNS				
2003		Oct	MURIH.	BLUE	Rankleburn	transect	13.75	average of 4 days?
				MTNS				
2004		Nov.	MURIH.	BLUE	Rankleburn	transect	17.00	average of 4 days
				MTNS				
2005		Oct	MURIH.	BLUE	Rankleburn	transect	13.00	average of 4 days
				MTNS				
2007	25-12	Oct/Nov	MURIH.	BLUE	Rankleburn	transect	27.00	average of 3 days
				MTNS				
2008	21-28	Oct	MURIH.	BLUE	Rankleburn	transect	28.30	average of 3 days
				MTNS				
2009	20-28	Oct	MURIH.	BLUE	Rankleburn	transect	43.00	average of 3 days
				MTNS				
2010	26-10	Oct/Nov	MURIH.	BLUE	Rankleburn	transect	22.00	average of 4 days
				MTNS				
2011	27-29	Oct	MURIH.	BLUE	Rankleburn	transect	37.50	average of 2 days
				MTNS				
2012	17-31	Oct	MURIH.	BLUE	Rankleburn	transect	43.30	average of 3 days
				MTNS				
2013	15-17	Oct	MURIH.	BLUE	Rankleburn	transect	38.70	average of 3 days
				MTNS				
2014	22-6	Oct/Nov	MURIH.	BLUE	Rankleburn	transect	29.30	average of 3 days
				MTNS				
2015	20-25	Oct	MURIH.	BLUE	Rankleburn	transect	43.50	average of 2 days (1 day margin)
				MTNS				
2016	20-27	Oct	MURIH.	BLUE	Rankleburn	transect	27.50	average of 4 days
				MTNS				
2017	29-1	Oct/Nov	MURIH.	BLUE	Rankleburn	transect	28.75	average of 4 days
				MTNS				
2018	22-25	Nov.	MURIH.	BLUE	Rankleburn	transect	24.30	average of 4 days
				MTNS				
2019	31-3	Oct/Nov	MURIH.	BLUE	Rankleburn	transect	22.50	average of 4 days (windy)
				MTNS				
2020	31-2	Oct/Nov	MURIH.	BLUE	Rankleburn	transect		average of 3 days
				MTNS			27.33	
2021	3-5	Nov.	MURIH.	BLUE	Rankleburn	transect		average of 3 days
				MTNS			28.00	
2022	30-1	Oct/Nov	MURIH.	BLUE	Rankleburn	transect		average of 3 days
				MTNS			17.33	
2023	10-12	Nov.	MURIH.	BLUE	Rankleburn	transect	13.70	average of 3 days
				MTNS				
1993		Dec	MURIH.	BLUE	John	transect	25.00	G. Rasch, obs error & time of day
				MTNS	O'Groats			

Notification about predator control in The Blue Mountains

To protect native species, the Department of Conservation (DOC) is going to reduce possums and rodents in the area.

Why we are controlling introduced predators

The Blue Mountains Forest is made up of silver beech trees with alpine tussock tops and dotted with wetlands that are home to rounded cushion plants. The area has rare and special native plants and animals. It is a regional stronghold for scarlet mistletoe that flower in the tree tops. The forest is also home to native birds such as kākārīki, rifleman/titipounamu, New Zealand falcon/kārearea, and a nationally important population of mohua/yellowhead. Mohua are now only found in a handful of South Island forests. They have dramatically declined because of introduced predators. Mohua are particularly vulnerable to predation.

How are we going to achieve this

The safest and most effective method to control introduced predators over large areas is to use biodegradable bait pellets containing 1080. This bait targets possums and rodents. Stoats are also controlled through secondary poisoning as they feed on the carcasses.

Helicopters will accurately distribute bait across approximately 13,000 ha of the forest along pre-determined and monitored flight paths. This is the safest and most effective way to control predators in the Blue Mountains due to the vast and rugged terrain.

After the operation, we will monitor the numbers of possums and stoats using cameras, and rats using tracking tunnels. We will also monitor mohua numbers to measure how successful we were at reducing predation.



Mohua. Photo: by s9(2)(g)(ii)

Consultation and consent outcome

DOC has consulted with hapū, iwi and key stakeholders including landowners adjacent to the treatment area. This involved discussing the operational plan, listening to any concerns and considering ways to mitigate them.

DOC is delegated authority by the Environmental Protection Agency to decide applications for permission to use 1080 on land administered or managed by DOC. The operation will comply with Public Health Permission requirements from Whatu Ora to manage risk to human health.

Next steps

Adjoining landowners and other stakeholders are being notified and there will be a public notice in the local newspaper/s. There will also be warning signs placed at entrances to the treatment area immediately prior to the operation.

After the operation, DOC will contact iwi, hapū, and stakeholders about the results of the operation. We also aim to share insights about the outcomes for native species over time.

Timeframe

The operation is planned for the first clear weather window between 14th May 2026 and the end of July 2026.

This operation begins with the distribution of non-toxic pre-feed bait pellets to prepare possums and rodents to eat the toxic bait (dyed green) that is applied afterwards. Both baits are about 16 mm in diameter and cylindrical shaped.

Managing risk

1080 is poisonous to humans, domestic and game animals. In areas where the toxin has been applied, dogs are highly at risk until poisoned carcasses have disintegrated. This takes four-to-eight months or longer.

Risks can be eliminated by following these rules:

DO NOT touch bait

WATCH children at all times

DO NOT EAT animals from this area or within the buffer zone outside the treatment boundary.

The standard buffer zone is 2 km for deer and pigs, 200 m for rabbits, and 1 km for hares, tahr, wallabies and possums.

Poison baits or carcasses are DEADLY to DOGS

Observe these rules whenever you see warning signs about pesticides. These signs indicate pesticide residues may be still present in baits and poisoned carcasses. When signs are removed this means you can resume normal activities in the area. Always report suspected vandalism or unauthorised removal of signs.

If you suspect poisoning, please contact:

- Your local doctor or hospital
- The National Poisons Centre: 0800 764 766 (urgent calls) or 03 479 7248 or dial 111
- Seek veterinary advice for suspected poisoning of domestic animals

Map of predator control area

The map on the next page shows the confirmed area for predator control.

For more information

Please contact:

Operational planner DOC Invercargill/Murihiku office,
PO Box 743, Invercargill, 9810

Phone: 0800 275 362

Email: NPCSouthland@doc.govt.nz

Visit the DOC website:

See more information about DOC's National Predator Control Programme

www.doc.govt.nz/our-work/national-predator-control-programme

See operational updates and detailed maps of predator control on public conservation land

www.doc.govt.nz/nature/pests-and-threats/pesticide-summaries

See updates about track access and safety

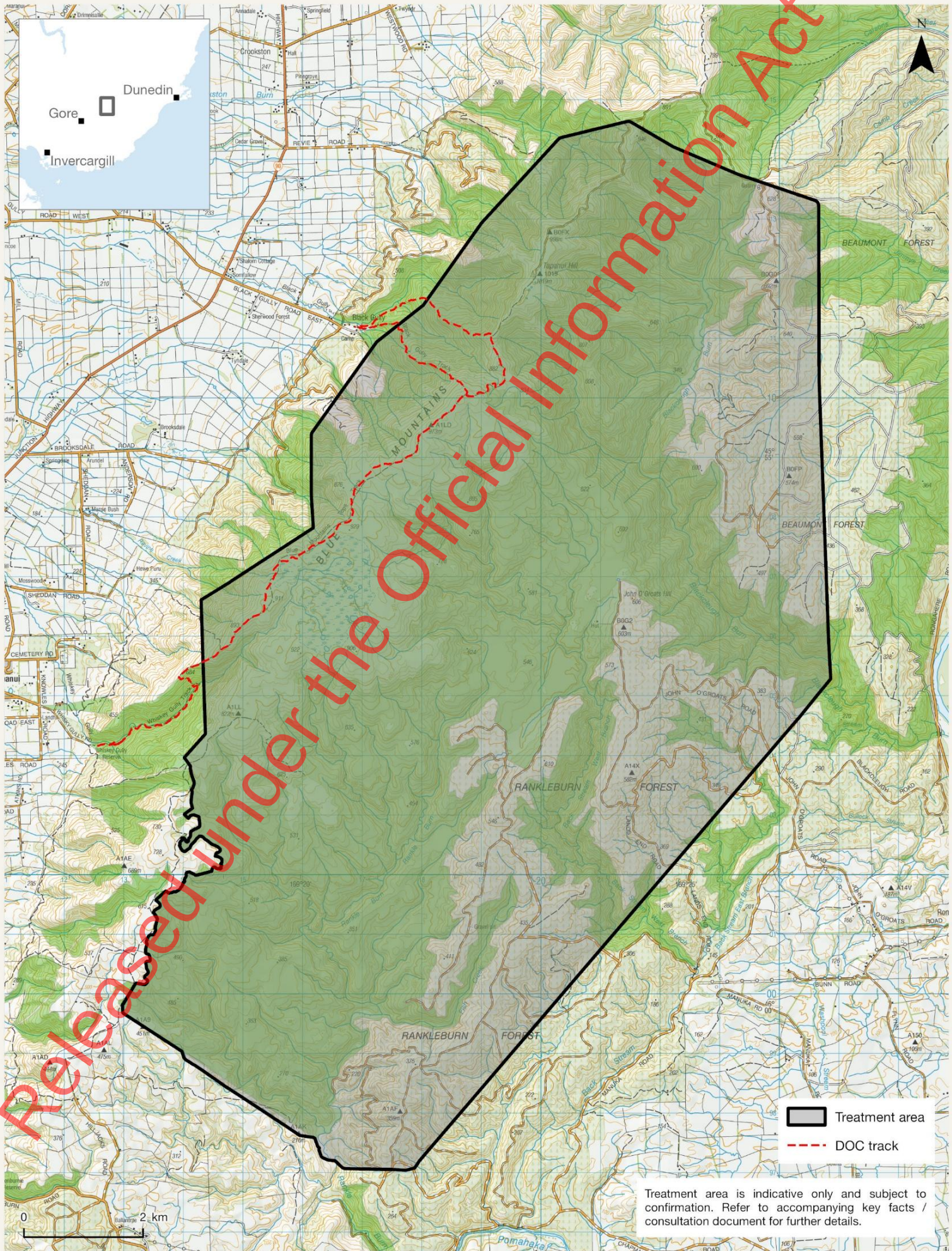
www.doc.govt.nz/parks-and-recreation/know-before-you-go/alerts

Learn more about why we use 1080 to control introduced predators

www.doc.govt.nz/nature/pests-and-threats/methods-of-control/1080

Learn more about Predator Free 2050

www.doc.govt.nz/nature/pests-and-threats/predator-free-2050



**Application Form for Rodent
Control in the
Blue Mountains Area**

**National Predator Control
Programme**

December 2025 – 30 March 2027

Name of applicant:

s9(2)(g)(ii)

Company/organisation:

DOC - Murihiku

Postal address:

PO box 743 Invercargill 9840

Phone number:

s9(2)(a)

Email address

s9(2)(g)(ii)

Prepared by:

s9(2)(g)(ii)

s9(2)(a)

s9(2)(g)(ii)



Department of Conservation
Te Papa Atawhai

CONTENTS

1. INTRODUCTION	2
2. OUTCOMES AND TARGETS	5
3. CONSULTATION AND CONSENTS	5
4. METHODS	6
5. FURTHER INFORMATION	8
APPENDIX 1: DOC PERFORMANCE STANDARDS	9
APPENDIX 2: MAPS	11
APPENDIX 3: COMMUNICATION RECORD	13
APPENDIX 4: CONSENTS	14
APPENDIX 5: ASSESSMENT OF ENVIRONMENTAL EFFECTS	15

1. Introduction

1.1 Overview

To control rodents in the Blue Mountains area as part of a two-phase operation to mitigate the effects of a predicted beech seed mast event in 2026.

It is proposed that the following pesticide use will be applied using an aerial broadcast method:

Pesticide Use number #145 - Sodium fluoroacetate, 1.5g/kg cereal pellet Aerial. Prodeer Dry Forest possum and rat bait

Permission is sought for toxic application starting on or after 1 December 2025 and ending on or before 30 March 2027.

To mitigate predator irruptions triggered by beech seed mast events, the NPCP TAG recommends the following rodent control strategy for the Blue Mountains:

- Pre-seed fall control: Implement rodent control operations prior to seed fall to reduce initial population build-up.
- Post-germination control: If monitoring in November 2026 indicates rodent numbers are high enough to trigger control thresholds, or if NPCP TAG advises proceeding, a post-germination control operation should be undertaken

While the permission request spans 16 months and covers two separate operations, the actual 'live' dates for bait application over both aerial applications will be:

- 1 December 2025, to 30 March 2026. Pre beech seed fall
- 1 November 2026 to 30 March 2027. Post beech seed germination

1.2 Treatment area

The treatment area 12,859ha consists of:

- Conservation Area – Blue Mountains Stewardship area (section 25), managed by the Department of Conservation; 9,381.43ha

-
- Ernslaw One Limited. Part of Rankleburn and Beaumont exotic forests; 3,473.08ha
 - LINZ administered land.
 - Crown land undefined 3.26ha
 - Hydro parcel, 1.03ha

The treatment area consists of native beech forest (silver beech dominant), exotic forestry plantation and areas of scrubby tussock-land.

The treatment area is intersected by numerous small streams and creeks, which feed into two larger waterways: the Rankle Burn and the Blackcleugh Burn. Both exit the treatment area and connect with major rivers—the Rankle Burn flows into the Pomahaka River, and the Blackcleugh Burn into the Clutha River—approximately 2.5 km beyond the treatment boundary. The only other named waterway within the treatment area is the Back Stream West Branch, located on the Ernslaw One property

1.3 Treatment block(s)

The treatment block consists of one block. It includes the majority of the Blue Mountains Forest Conservation Area and parts of the Ernslaw One Limited Rankleburn and Beaumont Forestry Blocks on the true right of the lower Clutha River. The treatment block is 12,859ha in total.

1.4 Geographical location

The treatment area includes the Blue Mountains Forest Conservation Area as well as a large portion of the Ernslaw One Rankleburn and Beaumont Forestry Blocks.

It extends from the southern boundary of the Blue Mountains Forest Conservation Area at Cattle Flat near Rankleburn and extends northwards to approximately 3km past the summit of Tapanui Hill.

The operational area is located approximately 3.5km east of Tapanui, West Otago.

1.5 Adjacent land tenure and uses

- Production Forestry (Ernslaw One Limited)
 - Private Farmland (Sheep & Beef)
 - Public Conservation Land
-

1.6 Nearby residential areas or facilities

There is a High School, Blue Mountains College, one primary school, Tapanui School, and one play-centre located at Tapanui 3.5kms West.

The water intake for the Tapanui water supply is approximately 1.5km from the proposed operational boundary Whiskey Gully

- Henderson Hut (derelict hut, inside the treatment area)
- Black Gully Camping Ground (public use, outside the treatment area)

1.7 Community interests

- Recreational Hunting
- Tramping

The treatment area includes balloted hunting blocks administered by DOC and Ernslaw One. The Blue Mountains fallow deer herd is a highly valued local resource.

The Blue Mountains Tops Track runs from Whiskey Gully along the tops to Black Gully.

1.8 Management history

Year	Site	Target Pest	Method	Agency
2019	Blue Mountains	Rats, Possums	Aerial	DOC
2014	Blue Mountains	Rats, Possums	Aerial	OSPRI/DOC
2011	Blue Mountains	Possums	Feratox, Traps	AHB
2009	Blue Mountains	Possums	Feratox, Traps	AHB

The Blue Mountains was regular component of the Animal Health Board TB Control Programme from 1998 – 2006.

2. Outcomes and targets

2.1 Conservation outcome(s)

An increase in adult mohua survival and nesting success through a reduction in rat predation on mohua.

2.2 Target(s)

Reduction of rodent numbers to low or undetectable levels as recorded through post-operational surveys.

Target level for post-operational monitoring will be 0% rat tracking index.

3. Consultation and consents

3.1 Consultation

The Department of Conservation has identified and initially approached key-stakeholders to consult on the proposed operation.

Consultation has included:

- Kaitiaki Rōpū ki Murihiku, comprising Te Rūnaka o Awarua, Waihōpai Rūnaka, and Hokonui Rūnanga, s9(2)(g)(ii), s9(2)(a)
- s9(2)(g)(ii) Engagement with Te Ao Marama Inc has been facilitated through the Kaitiaki Rōpū. s9(2)(g)(ii), s9(2)(a)
- The New Zealand Deerstalkers Association (NZDA) has been consulted, and an agreement has been reached regarding the use of deer repellent across the operational area.
- The Blue Mountains Hunting Liaison Group acknowledged the necessity of the control operation.

s9(2)(g)(ii), s9(2)(a)

- Otago Deerstalkers were consulted regarding the Henderson Hut water supply. Although the hut is not managed by the association, it receives occasional use due to its remote location and condition. The water supply is believed to be intact and will be managed in accordance with public health permission requirements.

- Adjoining landowners were consulted regarding potential effects. Water supply intake locations and management plans were confirmed with those who have water supplies. Impact on farming operations and risk to dogs have been discussed with non-sowing buffers on unfenced boundaries agreed to mitigate risk.
- The Clutha District Council was consulted about the Tapanui water supply catchment s9(2)(g)(ii), s9(2)(a) The operation has been carried out previously, and the water supply will be managed in line with public health permission conditions.
- Ernslaw One Ltd Forestry initially requested an expansion of the control area to include additional forestry land for possum control. Following consultation and a cost review, Ernslaw One agreed to retain the original boundary and has provided approval for inclusion of their land in the operation.

All communications undertaken during these consultation processes has been entered into a Communication Log.

3.2 Consents

The following documents are attached as Appendix 4, or are referenced as being available to view in the DOCDM:

- Public Health Unit (PHU) Application Form
(PHU permission will be supplied once received)

4. Methods

4.1 Treatment Block Blue Mountains Forest

Pesticides – Aerial

Pesticide Use

Sodium fluoroacetate
0.15% cereal pellet, aerial

Target Pest

Rodents

Brand Name of pesticide	Prodeer possum and rat bait
Lure/mask (& %)	Cinnamon, dyed green
Type of pre-feed (lure/dye)	Cinnamon, undyed
Number of pre-feeds (if any)	One

Sowing rates for pre-feed and toxic bait	Nominal sowing rates: 1.5kg/ha Pre-Feed 1.5kg/ha Toxic
Other details about this method	Prodeer dry forest 6 gram bait will be used

The operation will be flown at a nominal sowing rate of 1.5 kg/ha - permission is requested for a maximum sowing rate of up to 3 kg/ha to allow for bait overlaps in some areas.

4.2 Justification for proposed method

The Blue Mountain Forest treatment area contains numerous nationally threatened plant and invertebrate taxa that are either endemic to the area or highly range restricted. The vulnerability of these taxa to rodent predation and/or possum predation/herbivory has been well documented and both the sustained control of possum populations at low densities and the alleviation of rodent and stoat predation prior to beech seed fall and post seed germination irruptive phases is required to maintain or improve viable populations of these species.

The Blue Mountains Conservation Area holds one of the largest remaining populations of the nationally vulnerable Mohua (*Mohoua ochrocephala*), as well as populations of NZ bush falcon, kereru, and yellow crowned parakeet. This area has the potential to provide stable habitat for other threatened species that could be re-introduced such as kaka.

Fast-knockdown predator-control methods are seen as key to the protection of these species in the face of a forecast beech seed mast event. Using aerially applied toxin that is fast acting and only requires one application is the preferred method to control predators at a landscape scale to provide protection to taonga species during a beech mast event. Sodium fluoroacetate (1080) is the only toxin registered for aerial use on mainland New Zealand that meets these criteria.

5. Further information

Details of contractor or principle	Principal Agency Department of Conservation
Further information	Nil

Released under the Official Information Act

Appendix 1: DOC Performance Standards

Pesticide Use #145	Sodium fluoroacetate 1.5g/kg Cereal pellet Aerial (Prodeer Possum and Rat Bait)	Target Pests: Possums, Rats
HSNO approval code: HSR002424		ACVM registration number: V009653

Location of operation
Blue Mountains



Caution Period
The estimated caution period for this operation is <i>[assessor to complete]</i> months after last date of bait application and is subject to compulsory bait and carcass monitoring. This estimated caution period cannot be reduced to less than 4 months, and must be extended if the endpoints for monitoring have not been met at the end of the period.

Performance Standards

Compulsory for all operations

1. The Aerial 1080 in kea habitat SOP [DOC-2612859](#) must be followed.
2. Flight paths to and from the bait loading zones by aircraft equipped with loaded or uncleaned bait sowing equipment must avoid: stocked paddocks, residential dwellings, and any other 'no fly zones' specified by consent providers.
3. An aircraft must not, when flying to or from the treatment area, fly over a public drinking water supply or waterway that is less than 100 metres upstream of a point of extraction from a water source for a drinking water supply (not being a water supply exclusively for stock).
4. For operations targeting possums, baits will have a mean size of 6g or more, and 95% of baits should weigh more than 4g.
5. The baits must be dyed green or blue.
6. The boundaries of the bait preparation and loading site are marked and loading site signs [docdm-181171](#) erected. At the end of every day of the operation (including the final day), the loading site and any storage area must be fenced so that people do not inadvertently enter the site and stock cannot gain access to the area. The fence and signs remain in place until the area is decontaminated.
7. If there is any likelihood that farm stock has been exposed to 1080, the owner must be advised as soon as possible, and stock removed from the area.
8. The product must only be used as specified on the manufacturer's product label.

Compulsory for this operation (delete those that you won't be applying to your operation)

9. Bait sowing rate must be no greater than 5kg/ha for 6gm baits (or equivalent bait density per hectare for other bait sizes).
10. Minimise the period of time that bait is exposed at the loading site and able to be discovered by honeybees. Only open bags just prior to being loaded.
11. *[Add further standards as required. These could include local performance standards as well as any recommendations from Current Agreed Best Practice that you want to apply to your operation. Attach conditions from other consents as separate pages.]*

Information Needs

Compulsory for all operations

Nil

Compulsory for this operation

1. Monitoring: Monitor for native non-target animals in operational area, send samples for residue testing and report search effort and results in operational report. The Vertebrate Pesticides Residue Database SOP [docdm-33461](#) applies.

2. Monitoring: Monitor for domestic and feral non-target animals in operational area, send samples for residue testing and report search effort and results in operational report. The Vertebrate Pesticides Residue Database SOP [docdm-33461](#) applies.
3. Monitoring: Pre and post control monitoring of feral deer in the operational area with a non-treatment area for comparison and report results in operational report.
4. Monitoring: Follow best practice for pre and post control result monitoring to estimate percentage kill for possums and rats and report results in operational report.
5. *[Add as required.]*

Operational Planning & Design Considerations

These are considerations used during planning and assessment of an operation.

Assessor to delete this section from the approved performance standard sheet for the operation.

- Apply bait in coldest months of year.
- For operations targeting possums, do not repeat aerial operations within 4 years using the same bait.
- Use bait sowing buckets with retractable legs.
- Possum control methods current agreed best practice – Method best practice – Aerial Application of 1080 Cereal Pellets [DOC-7487883](#)
- Rat control methods current agreed best practice – Method best practice – Aerial Application of 1080 Cereal Bait [DOC-2749355](#)

My approval dated 23 December 2025, is subject to these performance standards being met.
Compliance monitoring may occur.

s9(2)(g)(ii)

s9(2)(g)(ii)

Director Operations - SSI

Appendix 2: Map

Released under the Official Information Act

s9(2)(a)

Released under the Official Information Act

Appendix 3: Communication Record

There is an ongoing consultation and notification process in place recorded in the communication plan linked below.

[Blue Mountains communication plan DOC-10379912](#)

Released under the Official Information Act

Appendix 4: Consents

Proof of Public Health Unit application. [DOC-10512035](#)

Public Health Permission. [DOC-10528575](#)

Ernslaw One Ltd. Access Permission. [DOC-10449598](#)

Released under the Official Information Act

Appendix 5: Assessment of Environmental Effects

Effects on non-target native species

Target benefit species

- Mohua/Yellowhead (*Mohoua ochrocephala*)
- Kākāriki/Yellow Crowned Parakeet (*Cyanoramphus auriceps*)
- Karearea/Southern Falcon (*Falco novaeseelandiae* “southern”)

Non-target species

Threat classification after Miskelly et al. (2008)

Common Name	Scientific Name	Threat Category
Yellowhead mohua	<i>Mohoua ochrocephala</i>	Nationally vulnerable
New Zealand falcon karearea	<i>Falco novaeseelandiae</i>	Nationally vulnerable
Long tailed bat pekapeka tou roa	<i>Chalinolobus tuberculatus</i>	Vulnerable

Other native bird species recorded in and around the treatment area which are not threatened include:

Common Name	Scientific Name
Bellbird kōparapara	<i>Anthornis melanura melanura</i>
Brown creeper pipipi	<i>Finschia novaeseelandiae</i>
Grey warbler riroriro	<i>Gergone igata</i>
Morepork ruru kōkōu	<i>Ninox novaeseelandiae</i>
Silvereye tauhou	<i>Zosterops lateralis</i>
South Island fantail piwakawaka	<i>Rhipidura fuliginosa fuliginosa</i>
South Island tomtit, miromiro	<i>Petroica macrocephala macrocephala</i>
Yellow crowned kākāriki	<i>Cyanoramphus auriceps</i>

Effect of operation on native species

A reduction in rodent (and indirectly stoat) numbers will achieve the following:

- enhance breeding success of all bird species including mohua, kākārīki and karearea
- enhance the insect food supplies and fruit/seed supplies available for birds

From the DOC 1080 Pesticide information review:

Studies carried out on native and non-native species suggests 1080 is likely to be toxic to most native animals. There is wide variation in sensitivity between taxonomic groups. Mammals are more sensitive than birds and invertebrates on a weight for weight basis. The small size of many native species relative to the target pests means that toxic baits used for pest control are capable of causing harm to almost any animal that eats the bait. Therefore, the level of exposure to the bait becomes important in determining the effects on non-target native species in the field.

Birds

A total of 47 radio tagged morepork/ruru has been exposed to this method and bait type over 6 operations and none have died from poisoning (**Error! Reference source not found.**). Call count monitoring at Waipoua did not indicate any significant 1080 related mortality (Pierce and Montgomery, 1992).

Transect counts of SI tomtits, grey warbler, SI robins and rifleman were conducted before and after the 2010 Waitutu aerial 1080 operation (1 kg ha⁻¹ prefeed followed by 2 kg ha⁻¹ 0.15% 1080 pellets). The transects were located at five sites, three within the operational area and two in a non-treatment area. While the numbers of tomtits and grey warblers detected on the transects changed following the application of the 1080, the scale and direction of the changes (decreases for tomtits and increases for grey warbler) was similar at all five sites. The pre- and post-control counts of rifleman and SI robins were similar between the operational area and non-treatment sites. The authors therefore concluded there was no evidence for population level impacts from 1080 on any of these species (Greene et al., 2013).

Van Vianen et al. (2018) monitored bellbird, silvereye, SI tomtit, rifleman, brown creeper, grey warbler and fantail using five minute bird counts pre- and post- aerial 1080 operations (1 kg ha⁻¹ prefeed followed by 2 kg ha⁻¹ 0.15% 1080 pellets) in the Rolleston Range and Alexander Range in 2012. The five-minute bird count monitoring occurred in the operational areas and at nearby non-treatment areas. None of the monitored species

declined significantly more within the operational areas compared to the non-treatment sites, indicating 1080 did not have an impact on the populations.

Kereru (NZ pigeon/kukupa) have not been monitored individually when exposed to this method and bait type. However none of six birds ate non-toxic cereal pellets offered in a trial on Kapiti island (Spurr and Powlesland, 1997). Monitoring of kereru during 5 aerial 1080 operations using cereal pellets did not detect population changes using the five minute count method (Spurr and Powlesland, 1997). Additionally, all 15 radio tagged birds exposed to an aerial 1080 operation using carrot bait survived (Powlesland et al., 2003).

21 marked (8 radio-tagged and 13 banded) adult NZ falcon were monitored through three 0.15% 1080 cereal pellet operations undertaken in Kaingaroa Forest during 2013-2014 by Horikoshi et al. (2018). All the marked falcon survived the operations. Using the live-recaptures model in Program MARK 8.1, the researchers estimated of the 95% C.I. survival of adult falcon through the operations at 84-100%.

Seaton et al. (2009) collected productivity data from 87 falcon nests in Kaingaroa pine plantation during three breeding seasons, 2003 - 2006. During this time 1080 pellets and carrots were ground laid or aerially applied in forest compartments where falcon bred. The numbers of chicks successfully fledged was not related to time since 1080 application (1 month to >3 years), application method or bait type. During the study the breeding falcon population increased from 20 to 36 pairs, leading to the authors concluding that 1080 did not have a negative impact on falcon, and probably had a positive impact by reducing predation pressure on the falcon.

Falcon territories remained occupied, presumably by the resident birds, during four aerial 1080 operations using cereal pellets (Pureora 1984, Mapara 1990-92) and one using carrot bait (Waihaha 1994) (Spurr and Powlesland, 1997). The total number of falcon involved in this monitoring was about 13, although the Mapara birds (3 pair) were exposed in three consecutive years (Bradfield, 1993; Calder and Deuss, 1985; Greene, 1998).

Kākāriki (parakeet) nests have been monitored during two aerial cereal 1080 operations. Fifteen nests were monitored during the October 2007 Hurunui Valley operation and a further seven nests were monitored during a 1080 operation in the Dart Valley. Dead chicks in a failed nest in the Hurunui Valley operation contained 1080 residues and the female was

not seen after the nest failed. All the monitored nests in the Dart Valley operation were successful, however two unmonitored Kakariki were found dead with 1080 residues in their tissues. The combined estimate of mortality of nesting parakeets from these operations was 2.27% (0.1-12 % 0.95 CI) (Rhodes et al., 2008). The authors concluded that while some Kakariki were killed during the 1080 operations, given the rate of nest predation observed in areas where no predator control was carried out, the net benefit from the 1080 operations was positive. No detectable impact could be determined through five minute bird count monitoring before and after four aerial 1080 operations using carrot or cereal pellet baits (Spurr and Powlesland, 1997). Additionally following an intensively monitored aerial 1080 operation in Waihaha in 1994 using carrot bait, Greene (1998) observed "...kakariki remained common within the study area..."

Australasian harrier have not been monitored individually when exposed to this method and bait type. However no detectable impact could be determined through five minute bird count monitoring before and after an aerial 1080 operation using cereal pellets on Rangitoto island and "the small resident population was still seen...throughout the year following the poisoning" (Miller and Anderson, 1992). Additionally, Pierce and Maloney (1989) found no evidence of dead harriers after aerial 1080 poisoning of rabbits in the McKenzie basin.

Edmonds et al. (2017) monitored individually marked Short-tailed bats before, during and after an aerial 1080 operation in the Eglinton Valley in December 2014. In this 10 939 ha operation, RS5 pellets were prefed at a 1 kg/ha followed by 1 kg/ha 0.15% 1080 RS5 pellets approximately 6 weeks later. 764 out of 771 marked bats (99.1%) were alive one week after the operation. One bat pup found dead under a roost tree tested positive for 1080 residues. However, any immediate impact of 1080 was assessed as minimal because the calculated annual survival rates of female bats was high (91.5%).

Lloyd (1994) offered non-toxic cereal pellets to captive Short-tailed bats and hand broadcast baits containing a fluorescent marker throughout an area known to be inhabited by bats and concluded "...short-tailed bats are unlikely to eat carrot or grain-based baits...". However short-tailed bats are possibly vulnerable to secondary poisoning because they are known to feed on arthropods that have been recorded feeding on 1080 baits and residues in these prey can in theory be enough to kill a bat (Lloyd and McQueen, 2000).

In a study in Rangataua forest where 0.15% 1080 Pellets were aerially broadcast (3 – 5 kg ha⁻¹) over “...almost the entire winter range...” of the study animals, a total of 269 short-tailed bats were caught at their roost following poisoning and held for 48 hours to determine mortality or signs of poisoning. All animals survived and showed no signs of 1080 poisoning (Lloyd and McQueen, 2000).

Lizards were not monitored in any 1080 poisoning operations prior to 1994; however, none have been reported killed by 1080. Captive McCann’s skinks ate non-toxic cereal pellets (RS5 and Agtech), especially when the baits were wet, but the level of consumption (0.01 - 0.02 g over 2 days) was probably insufficient for the animals to have received a lethal dose had the baits been toxic (Freeman et al., 1997).

The attractiveness of non-toxic RS5 cereal pellets (dyed green and lured with cinnamon) to wild grand and Otago skinks were tested by Marshall and Jewell (2007). The baits were offered in two sizes – small pieces no larger than 6 mm and large baits (whole pellets). The baits were offered dry or wet. All bait types were sampled (licked, nudged or bitten) by both species of skink, with small pieces sampled more often than large baits. No animals tried to consume large pieces of cereal bait. However, 1/10 grand skinks and 3/20 Otago skinks consumed small, wet pellet fragments.

Invertebrate populations have been monitored during eight 1080 aerial poisoning operations using cereal pellets. None of these studies suggest significant population effects on any species studied nor is there evidence to suggest poisoned invertebrates are a significant factor in secondary poisoning of other animals.

An extensive study of forest invertebrates found on 1080 baits by Sherley et al. (1999) found that at any time only a small proportion of baits had invertebrates on them, and the few individuals per bait represented a small section of the fauna present in the litter. The number of invertebrates recorded on baits in treatment grids declined when 0.15% 1080 Pellets were laid at 18 kg ha⁻¹, but started to return to original levels (relative to control grids) within 6 days of removal of the toxic baits. The reduction in invertebrate numbers did not extend further than 20 cm around each bait.

Another study by Spurr and Berben (2004) hand laid 0.15% 1080 Pellets at 5 kg ha⁻¹ to simulate aerial poisoning in Tararua Forest Park in 1999 and monitored the occupancy of artificial refuges by tree weta and cave weta (*Isoplectron* sp.). No significant impact of bait application was found for these species nor was there any effect observed on numbers of slugs,

spiders and cockroaches which also commonly used the same refuges.

No impact was detected on populations of weta in Waipoua Forest and all cockroaches, centipedes, millipedes, kauri snails and all but one beetle survived in enclosures with 0.08% 1080 Pellets (Pierce and Montgomery, 1992).

More specific information on this monitoring can be found in the Pesticide Information Review for 1080 (DOCDM-25427).

Performance standards and information needs

Ensuring 1080 bait meets all quality specifications is considered the best way to avoid adversely affecting birds and other native species:

1. 1080 baits will be lured with cinnamon.
2. 1080 baits will have a mean size of 6 grams.
3. 1080 bait quality will be checked to ensure bait size complies with standards.
4. 1080 baits will be dyed green to deter birds.
5. 1080 baits will be sown at an effective average sowing rate of 1.5 kg/ha but not greater than 3 kg/ha.
6. Dry forest baits will be used.

Effects on non-target domestic and feral animals

Non-target species

Introduced bird species found in the treatment areas include:

Common Name	Scientific Name
Blackbird	<i>Turdus merula</i>
Chaffinch	<i>Fringilla coelebs</i>
Goldfinch	<i>Carduelis carduelis</i>
Greenfinch	<i>Carduelis chloris</i>
Hedge sparrow, dunnoek	<i>Prunella modularis</i>
House sparrow	<i>Passer domesticus</i>
Redpoll	<i>Carduelis flammea</i>
Skylark	<i>Alauda arvensis</i>
Song thrush	<i>Turdus philomelos</i>
Starling	<i>Sturnus vulgaris</i>
Yellowhammer	<i>Emberiza citrinella</i>

Other introduced animal pests recorded within the treatment areas include:

Common Name	Scientific Name	Extent
Fallow deer	<i>Dama dama</i>	common, localised
Possum	<i>Trichosurus vulpecula</i>	widespread
Stoat	<i>Mustela erminea</i>	common, widespread
Norway rat	<i>Rattus norvegicus</i>	widespread
Ship rat	<i>Rattus rattus</i>	widespread
Mouse	<i>Mus musculus</i>	common, localised
Pig	<i>Sus scrofa</i>	widespread

Effects of operation on domestic and feral animals

From the DOC 1080 Pesticide information review:

There is wide variation between species in their susceptibility to 1080 poisoning. Dogs are especially vulnerable and highly likely to die if they eat 1080 baits or scavenge animals killed by 1080.

Feral deer population mortality from aerial poisoning operations targeting possums is highly variable and does not appear to be consistently influenced by toxic loading, sowing rate, prefeeding or bait type. Most estimates of deer kill fall between 30 and 60%. Nugent et al. (2001) quote productivity figures for red deer populations of around 30% so low to moderate by-kill of deer populations is probably negated within a couple of years.

The impact of Prodeer 1080 bait on red deer and feral pigs was studied during a 5,395 hectare possum control operation at Willowflat Forest, Hawke's Bay, in October 2021. Prefeed (Prodeer non-toxic 6g pellets) was applied at 1.5kg/ha followed 13 days later by toxic bait (Prodeer, 0.15% 1080, 12g pellets) at 2kg/ha. Trail cameras were used to monitor deer and pig activity over 4 months before and 2 months after the poison operation at the poison treatment site and a nearby unpoisoned block at Maungataniwha Forest. Deer visit rates per camera day increased by a similar amount in both the poisoned and unpoisoned blocks throughout the study period, probably in response to seasonal changes such as increased grass growth. There was no effect of poisoning on deer count per camera after accounting for the time+site effects, with an estimated increase in activity of 2% (95% CI = -5.5–10%) in the poisoned area. A few live deer were seen during deployment servicing and removal of cameras but no dead deer. A small number (1%) of deer observations on camera were of fallow deer. For pigs in the poisoned area there was a estimated decrease of 47% (95% CI=39-54%) in pig count per

camera after accounting for time+site effects, however camera visitation rate of feral pigs progressively declined through the monitoring period (including over each 7 day period in the 4 months before the control) and it was not clear if the poison operation caused any bykill of pigs. No pig carcasses were observed incidentally during fieldwork in the poisoned area (Morriss and Gormley 2022).

Birds are generally less susceptible to 1080 than mammals but introduced birds such as blackbirds and chaffinches are found dead after aerial poisoning operations.

Although 1080 is toxic to honeybees, baits used in pest control are generally not attractive to honeybees. However, this may not always be the case if honeybees are particularly hungry, so beekeepers should always be notified of operations.

Performance standards and information needs

1. Signs will be erected at all normal public entry points to the treatment area and maintained until the caution period has expired and/or the area is deemed safe according to bait and carcass monitoring protocols. The number and location of warning signs will depend on the locality and will otherwise adhere to Public Health Unit (PHU) permission conditions.
2. A3 warning signs at every public entry point will clearly state “poison baits or carcasses are deadly to dogs” and will include a map of the operational area.
3. No permits to take dogs into the treatment areas will be issued until the operational all-clear is given i.e. caution period has ended and warning signs have been removed by DOC staff.
4. The Department’s Consultation and Notification SOP will be followed to inform visitors of the operation and the risk to dogs.
5. Hunters will be notified of the application of toxins via the on-line Pesticide Summary.
6. Deer repellent will be used as per consultation with the New Zealand Deer Stalkers Association and the Game Animal Council.
7. BMHLG and the local pig hunting club will be notified directly.

Further information

Further information

There is no livestock present within the treatment area. There is stock in a number of neighbouring properties to the South. Consultation with adjoining landowners identified areas where a lack of fencing placed cattle at risk. Non sowing buffers and communication will mitigate this risk.

The aerial stratum includes part of the DOC administered Blue Mountains Recreational Hunting Area (RHA) which is a very popular deer hunting location in the lower South Island. There is also some pig hunting in forests within the area as well. The Blue Mountains Hunter Liaison Group (BMHLG) are representatives from the extended hunting community, DOC, and Ernslaw One. The chairman and the group are the point of contact when communicating with hunters about control operations in the Blue Mountains. Generally, these hunters are opposed to aerial 1080 operations in the Blue Mountains. The major issue requiring significant communication effort for this operation will be consulting with and notifying this group to address concerns they may have about the operation. The use of ProDeer deer repellent bait is proposed for this operation and should help to address some of the concerns held by the local deer hunting community. The presence of hunting dogs in the treatment area following an aerial operation, while carcasses remain toxic, is a major risk associated with this operation. Clear signage and thorough notification to the wider hunting community should help address this issue.

The Blue Mountains range was first treated in winter 2001. At that time there was significant opposition to the aerial from the hunting community. A formal survey of the fallow deer population following the operation showed that approximately 70% of the breeding females were killed. Another aerial operation was repeated in 2008 and 2014 and this time included the use of EDR (Epro Deer Repellent) on cereal baits, which resulted in considerably less opposition from hunters. The formal survey on the deer post 2008 operation showed that less than 10% of the population was killed.

Dogs are highly susceptible to 1080 and must not be exposed to the opportunity to directly eat toxic baits or scavenge from poisoned carcasses. Carcasses can remain toxic after 1080 poisoning until completely decomposed which can take

between 1-12 months, depending on weather conditions and micro-site factors.

The Department places details including maps about pesticide operations occurring on public conservation land on its website (under 'Pesticide Use Summaries'). The caution period and warning signs will remain in place until monitored bait and carcasses are nontoxic.

References

The following published references were used in developing this AEE:

Fairweather, A.A.C.; Broome, K.G. 2018: Sodium Fluoroacetate Pesticide Information Review. Version 2025/1. Unpublished report docdm-25427, Department of Conservation, Hamilton, NZ. 134p.



Department of
Conservation
Te Papa Atawhai

23 December 2025

Director General of Conservation

c/o [REDACTED]

Department of Conservation, 7th Floor, Cue on Don
33 Don Street
Invercargill 9810

CC: permissions@epa.govt.nz

Biodiversity Advisor

ATTENTION: [REDACTED]

PERMISSION ID: 10549991

Rodent control in the Blue Mountains Forest Conservation Area

SUBSTANCE APPROVAL NUMBER: HSR002424

Having considered your application [DOC-10517910](#), the Pesticide Decision Support document [DOC-10577695](#) and having considered the adverse effects of the use of aerial sodium fluoroacetate on DOC managed or administered land, I have decided to grant this permission subject to conditions. I consider that granting this permission is in accordance with the purpose of the Hazardous Substances and New Organisms Act 1996 recognising the life-supporting capacity of ecosystems, the well-being of people and communities and taking into account the principles and other matters in sections 5, 6, 7 and 8 of the Act. I consider that the conditions imposed in this permission are consistent with the approval of the substance.

I also consider that the controlling of pests is in accordance with the General Policy for Conservation Areas (particularly Policy 4.3) and the Conservation General Policy (see Section 4.2). These General Policies have been given effect to through various conservation planning documents and are in line with the purposes of the conservation legislation. I also understand that the controlling of pests and the protection of indigenous biodiversity generally gives effect to the principles of the Treaty of Waitangi. I, therefore, consider that permission to control pests on public conservation land can be granted.

Permission is granted, to take immediate effect, under:

- Section 95A of the Hazardous Substances and New Organisms Act 1996.
- Section 38 of the Conservation Act 1987.
- Section 17 of the Wild Animal Control Act 1977.
- Section 53 of the Wildlife Act 1953.

for [REDACTED] Department of Conservation, or any other person acting under their authority (including contractors) to apply:

- Pesticide Use 145 [Sodium fluoroacetate] [1.5g/kg] [Cereal pellet] [Aerial]

on or after the date stated above until 30 March 2027; and

to undertake the actions approved under the above Acts on the lands managed or administered by the Department of Conservation listed below and shown on the **attached map below:**

- 9,381.43 ha of the Blue Mountains Forest Conservation Area, a Stewardship Area under section 25 of the Conservation Act 1987.

This operation is approved for the purpose of controlling rodents with the aim of birdlife protection and plant regeneration, but particularly for nationally important mohua, kakariki and karearea populations.

It is recognised that this operation may kill other non-target pests.

The permission is given subject to the requirement that the operation:

- Is carried out as generally described in the Application Form submitted 28 November 2025.
- Meets the conditions shown in the attached sheet of DOC Performance Standard for Pesticide Use number 145 and the substance is used in accordance with the EPA's approval of that substance.

Notwithstanding that the permission holder must comply with these requirements, it is acknowledged that indigenous animals may be killed and so this permission authorises such deaths for the greater protection of indigenous species.

Auditing may occur to establish whether these conditions are being met. If not, the permission may be revoked, and further action may ensue. It is an offence to breach these permission's conditions.

The permission may be revoked, or conditions added, deleted or otherwise varied at any time.

s9(2)(g)(ii)

s9(2)(g)(ii)

Director Operations, Southern South Island

Pursuant to a written delegation from:

- The Chief Executive, Environmental Protection Authority for section 95A of the Hazardous Substances and New Organisms Act 1996
- The Director-General of Conservation for section 38 of the Conservation Act 1987
- The Director-General of Conservation for section 17 of the Wild Animal Control Act 1977.
- The Director-General of Conservation for sections 53 of the Wildlife Act 1953.

Enc: **Map (see below)**

DOC Performance Standards (see below)

Pesticides Decision Support document [DOC-10577695](#)

Pesticide Use #145	Sodium fluoroacetate 1.5g/kg Cereal pellet Aerial (Prodeer Possum and Rat Bait)	Target Pests: Possums, Rats
HSNO approval code: HSR002424		ACVM registration number: V

Location of operation
Rodent control in Blue Mountains Forest Conservation Area



Caution Period
The estimated caution period for this operation is nine months after last date of bait application and is subject to compulsory bait and carcass monitoring . This estimated caution period cannot be reduced to less than 4 months, and must be extended if the endpoints for monitoring have not been met at the end of the period.

Performance Standards

Compulsory for **all** operations

1. The Aerial 1080 in kea habitat SOP [DOC-2612859](#) must be followed.
2. Flight paths to and from the bait loading zones by aircraft equipped with loaded or uncleaned bait sowing equipment must avoid: stocked paddocks, residential dwellings, and any other 'no fly zones' specified by consent providers.
3. An aircraft must not, when flying to or from the treatment area, fly over a public drinking water supply or waterway that is less than 100 metres upstream of a point of extraction from a water source for a drinking water supply (not being a water supply exclusively for stock).
4. For operations targeting possums, baits will have a mean size of 6g or more, and 95% of baits should weigh more than 4g.
5. The baits must be dyed green or blue.
6. The boundaries of the bait preparation and loading site are marked and loading site signs [docdm-181171](#) erected. At the end of every day of the operation (including the final day), the loading site and any storage area must be fenced so that people do not inadvertently enter the site and stock cannot gain access to the area. The fence and signs remain in place until the area is decontaminated.
7. If there is any likelihood that farm stock has been exposed to 1080, the owner must be advised as soon as possible, and stock removed from the area.
8. The product must only be used as specified on the manufacturer's product label.

Compulsory for this operation (delete those that you won't be applying to your operation)

9. Bait sowing rate must be no greater than 5kg/ha for 6gm baits (or equivalent bait density per hectare for other bait sizes).
10. Minimise the period of time that bait is exposed at the loading site and able to be discovered by honeybees. Only open bags just prior to being loaded.

Information Needs

Compulsory for **all** operations

Nil

Compulsory for this operation

Nil

My approval dated 23/12/2025 is subject to these performance standards being met. Compliance monitoring may occur.

s9(2)(g)(ii)

s9(2)(g)(ii)

Director Operations, Southern South Island

Released under the Official Information Act

s9(2)(a)

Released under the Official Information Act

s9(2)(g)(ii)

sed under the Official Information Act



Department of
Conservation
Te Papa Atawhai

30/04/2026

Director General of Conservation

c/o [REDACTED]

Department of Conservation, 7th Floor, Cue on Don
33 Don Street
Invercargill 9810

CC: permissions@epa.govt.nz

Regional Pesticide Summary
Coordinator

ATTENTION: [REDACTED]

PERMISSION ID: 10549991

Rodent control in the Blue Mountains Forest Conservation Area

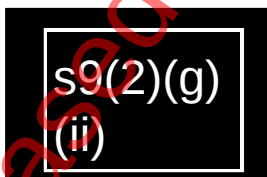
SUBSTANCE APPROVAL NUMBER: HSR002424

Under Sections 95A of the Hazardous Substances and New Organisms Act 1996, s38 of the Conservation Act 1987, s17 of the Wild Animal Control Act and s53 of the Wildlife Act 1953, the following condition(s) of the Permission ID **10549991** issued to you on 23/12/2025 are:

VARIED:

To amend the species to be targeted from rodents, to targeting both possums and rodents to ensure both pest species are reflected as targets for this operation. This is due to additional monitoring finding possum numbers are above the 5% threshold and therefore need to be targeted for control. The methodology to be used remains the same.

All other conditions of the Permission remain unchanged.



[REDACTED] Acting Regional Director, Southern South Island

Pursuant to a written delegation from:

- The Director-General of Conservation for section 95A of the Hazardous Substances and New Organisms Act 1996.
- The Director-General of Conservation for section 38 of the Conservation Act 1987.
- The Director-General of Conservation for section 17 of the Wild Animal Control Act 1977.
- The Director-General of Conservation for sections 53 of the Wildlife Act 1953.

s9(2)(a)

Released under the Official Information Act



Department of
Conservation
Te Papa Atawhai

13/05/2026

Director General of Conservation

c/o [REDACTED]

Department of Conservation, 7th Floor, Cue on Don
33 Don Street
Invercargill 9810

CC: permissions@epa.govt.nz

Regional Pesticide Summary
Coordinator

ATTENTION: [REDACTED]

PERMISSION ID: 10549991

Rodent and possum control in the Blue Mountains Forest Conservation Area

SUBSTANCE APPROVAL NUMBER: HSR002424

Under Sections 95A of the Hazardous Substances and New Organisms Act 1996, s38 of the Conservation Act 1987, s17 of the Wild Animal Control Act and s53 of the Wildlife Act 1953, the following condition(s) of the Permission ID **10549991** issued to you on 23/12/2025 are:

VARIED:

To amend the treatment area to include the 'other' land being treated as part of the Blue Mountains Forest operation by the Department of Conservation. This includes 3,477.37 hectares of land managed privately, undefined Crown land and Hydro parcels, as well as the 9,381.43 hectares of the Blue Mountains Forest Conservation Area. Therefore, a total of 12,858.80 hectares of land will be treated.

There is also an update to the block to be treated. The original permission included an exclusion for the Hendersons Hut. However, Public Health permission has been granted to fly over the hut with conditions, and therefore the map of the operation has been altered to reflect this (see below). Note: some of the warning sign locations and the loading site have also been changed to reflect the operation.

All other conditions of the Permission remain unchanged.

[REDACTED]
s9(2)(g)(ii)

.....
[REDACTED], Regional Director, Southern South Island

Pursuant to a written delegation from:

- The Director-General of Conservation for section 95A of the Hazardous Substances and New Organisms Act 1996.
- The Director-General of Conservation for section 38 of the Conservation Act 1987.

- The Director-General of Conservation for section 17 of the Wild Animal Control Act 1977.
- The Director-General of Conservation for sections 53 of the Wildlife Act 1953.

s9(2)(a)

Released under the Official Information Act

PERMISSION TO USE CERTAIN VERTEBRATE TOXIC AGENT(S) OR OTHER HAZARDOUS SUBSTANCE(S)

(IN A CATCHMENT AREA FROM WHICH WATER IS DRAWN FOR HUMAN CONSUMPTION OR AN AREA WHERE A RISK TO PUBLIC HEALTH MAY BE CREATED)

Under section 95A of the Hazardous Substances and New Organisms Act 1996 (HSNO Act), permission is required from a public health HSNO enforcement officer to use certain vertebrate toxic agents (VTAs) or other hazardous substances¹ when they are intended to be applied or used in a catchment area from which water is drawn for human consumption, or applied in any other area where a risk to public health may be created.

Full name of applicant:	Department of Conservation				
Contact person:	s9(2)(g)(ii)				
Contact details:					
Physical address:	33 Don Street, Invercargill				
Postal address:	As above				
Contact phone number:	s9(2)(a)				
Email:	s9(2)(g)(ii)				
Permission type and identification code					
New	2025/067/SOU	Extension	N/A	Renewal	N/A

Permission period			
Permission start date:	26/11/2025	Permission end date:²	01/11/2026

Operation	
Operation name:	Blue Mountains Rat Control
Operation locality:	Blue Mountains, West Otago
Purpose of operation:	Rat control
Nearest city/town:	Tapanui
Local government:	Clutha District Council and Otago Regional Council
Total operation size (ha):	11,964 ha
Previous operations:	N/A

¹ Hazardous substances requiring permissions refer to substances listed in Schedule 1 of the Environmental Protection Authority's Instrument of Delegation. These are: sodium fluoroacetate (1080), sodium cyanide, potassium cyanide, yellow phosphorous, 3-chloro-p-toluidine-hydrochloride, microencapsulated zinc phosphate paste, Advion® fire ant bait, Amdro® fire ant bait, Campaign® ant bait.

² End date refers to expiry date of this permission and not to the final date the vertebrate toxic agent or hazardous substance may be applied.

I, Simon Ou, having been appointed by the Director-General of Health as an enforcement officer to enforce the provisions of the Hazardous Substances and New Organisms Act 1996 where it is necessary to protect public health, and acting under delegation from the Environmental Protection Authority, grant permission for the use of the vertebrate toxic agents or other hazardous substances listed in Schedule 1, in the area(s) indicated on the operational map(s) in Schedule 2, and subject to the conditions set out in Schedule 1, Schedule 2 and Schedule 3.

Signed:	s9(2)(g)(ii)
Name:	s9(2)(g)(ii)
Title:	HSNO Enforcement Officer National Public Health Service, Southern
Contact details:	
Postal address:	Private Bag 1921, Dunedin 9054
Contact phone number:	s9(2)(a)
Email:	s9(2)(g)(ii)

Appeals: Section 125 (1A) of the Hazardous Substances and New Organisms (HSNO) Act: A person may appeal to the District Court against a decision of the Authority, under section 95A about the terms and conditions of a permission held by the person.

Notice of Appeal: Section 127 of the HSNO Act: Before or immediately after the filing and service of a notice of appeal, the appellant shall serve a copy of the notice on the Authority, and every other party to the proceedings, and any other person who made a submission to the Authority.

Schedule 1: VTA or hazardous substance information

Permission identification code:	2025/067/SOU
Operation locality:	Blue Mountains, West Otago

VTA or hazardous substance (1)

VTA or hazardous substance	Strength	Form	Application rate (for aerial operations)	Purpose
Sodium fluoroacetate (1080)	1.5 g/kg	Pellets	1.5 kg/Ha	Rat control
HSNO approval number: HSR002424				
Start date of operation: 26/11/2025			Last date of operation: 01/11/2026	
Specify all application methods to be used for the hazardous substance: Methods to be used: Aerial				

Schedule 2: Operational map(s)/lists

Permission identification code	2025/067/SOU
Operation locality:	Blue Mountains, West Otago
Description of the operational area. The operational area covers the Blue Mountains forestry blocks. Land is managed by the Department of Conservation and Ernslaw One Ltd. Area of ground control 0 ha Area of aerial control 11,964 ha Total area 11,964 ha	

The substance must be applied on areas outlined on the maps attached to this permission.

s9(2)(a)

Released under the Official Information Act

Schedule 3: Conditions

Permission identification code	2025/067/SOU
Operation locality:	Blue Mountains, West Otago

Operators must be aware of and comply with all relevant legal obligations. The conditions of a permission are legally binding. However, compliance with conditions does not necessarily mean that operators have met all legal requirements for the use of VTAs and other hazardous substances. It is the responsibility of operators to comply with all legal requirements, including but not limited to, the Agricultural Compounds and Veterinary Medicines Act 1997, Animal Products Act 1999, Biosecurity Act 1993, Civil Aviation Act 1990, Conservation Act 1987, Crimes Act 1961, Food Act 2014, Hazardous Substances and New Organisms Act 1996 (HSNO Act), Health and Safety at Work Act 2015, Health and Safety at Work (Hazardous Substances) Regulations 2017, Land Transport Act 1998, Resource Management Act 1991 and Water Services Act 2021.

The following conditions must be met in order to use the vertebrate toxic agents or other hazardous substances listed in Schedule 1, as they are intended to be applied or used in a catchment area from which water is drawn for human consumption, or in another area where a risk to public health may be created.

General Requirements

Condition 1: Start date and duration

This approval is granted for the period commencing **26/11/2025** to **01/11/2026**. National Public Health Service, Southern (the issuer) shall be notified if there is any alteration to the intended date of the application.

Advise the issuer of the commencement of the application of the substances(s) specified in Schedule 1, at least 12 hours before commencing application.

Advise the issuer of any significant changes, complaints or incidents relating to this operation.

Contact the issuer at least two weeks before the expiry date of the original approval period if you wish to continue the operation after this date. A permission can be extended only if it meets certain criteria.

For non-urgent matters (e.g. notifying commencement, requesting extension), please notify by emailing SO-NPHS-VTA@tewhatuora.govt.nz and copying the Contact Person identified on page 2 of this permission. For urgent matters, or if out of office hours (e.g. reporting complaints or incidents), notification should also be copied to SO-NPHS-OnCallHPO@tewhatuora.govt.nz

Condition 2: Changes to permission

Advise the issuer in writing of any changes to the proposed operation.

Condition 3: Landowner and occupier notification

Before commencing the operation, notify occupiers and, as far as practicable, owners of land, homes or buildings within the operational area and immediately abutting the operational area. The notice must be given sufficiently prior to, but within two months of, the proposed application of the substances(s) specified in Schedule 1. If requested by the person notified, repeat the notification at a mutually agreed time before the proposed application.

The notice shall specify:

1. the name and nature of the VTA(s) and other hazardous substance(s)
2. the approximate date on which the VTA(s) and other hazardous substance(s) will be applied
3. a description of the area over which the VTA(s) and other hazardous substance(s) will be applied
4. the name and address of the person responsible for applying the VTA(s) and other hazardous substance(s)
5. information on safety and precautions with respect to the VTA(s) and other hazardous substance(s) being used.

Condition 4: Complaints and incidents

Any incidents or complaints relating to the operation that are likely to impact on public health shall be reported to the issuer within 24 hours of the incident or complaint.

Condition 5: Aerial applications to huts, access points, camping and public areas, walking and vehicle tracks, roads and lay-bys

The substance(s) specified in Schedule 1 may be applied to the following dwellings, huts, access points, camping and public areas, walking and vehicle tracks, roads and lay-bys:

Track (High Use)

- Black Gully track (within the operational area)

The above track shall be inspected as soon as possible and no more than 24 hours after the application of bait. Reasonable efforts will be made to find and remove all bait and, if encountered, animal carcasses.

Undertake a second inspection of the tracks, huts, campsites and public areas and make reasonable efforts to find and remove all bait and, if encountered, animal carcasses. The second inspection shall be made at least 24 hours after the toxic bait application.

Track and Hut (low Use)

- Blue Mountains Top track (within the operational area)
- Henderson Hut

The above track and hut shall be inspected as soon as possible and no more than 24 hours after the application of bait. Reasonable efforts will be made to find and remove all bait and, if encountered, animal carcasses.

Roads

- John O'Groats Road
- Lands End Road
- Rankleburn Road
- Fish Creek Road

There are locked gates for the above forest roads. They will be locked, and access will be restricted during the application.

The above roads after the locked gates to the operational area, shall be inspected as soon as possible and no more than 7 days after the application of bait. Reasonable efforts will be made to find and remove all bait and, if encountered, animal carcasses.

Condition 6: GPS track logs

The electronic GPS track logs shall be recorded and maintained for each clearance and made available to National Public Health Service – Southern, HSNO Officer within two weeks of the VTAs being applied.

Protection of drinking water supplies

Condition 7: Protection of drinking water supplies

Sufficiently prior to, but within two months of, the operation, the applicant must identify appropriate mitigation measures to protect all water supplies (including domestic self-supplies) that draw water for human consumption from an abstraction point:

- within the operational area, or
- within 400 m for aerial applications, downstream of the operational area where the water source is a surface waterbody that flows through or rises within the operational area.

Within this same timeframe, the applicant must also notify the water supplier of these measures and take and record these measures.

Mitigation Measures for Drinking Water Suppliers

- **Roof Water Source: Henderson Hut**

The roof water source supply does not require an intake exclusion zone.

The intake shall be disconnected until the roof and spouting can be checked for the presence of bait and, if found, removed. If bait is found, spouting must be flushed prior to the reconnection of the drinking water supply.

- **Stream Water Source for Domestic Water Supply**

- **Black Gully Reserve**

The intake is **520 metres** away from the operational boundary, but the water source rises within the operational area. The intake shall be disconnected prior to operation and remain off for at least 36 hours post operation.

- **Lietze Water Supply**

The water source doesn't rise from within the operational area. The intake exclusion distance for the above supply is **250 metres**.

- Other supplies

For supplies abstracted from waterbodies (e.g., lake, spring, stream) that require an intake exclusion zone, no 1080 shall be applied within 50 meters of the water supply intake. For flowing surface waterways (e.g., stream), the 50 meters exclusion shall extend for a length of 200 meters upstream from the point of intake.

Operational planning for animal pest operations SOP

Contents

1.	What you need to know	2
1.1.	Purpose and scope	2
1.2.	Accountabilities	2
1.3.	Prerequisites	3
1.4.	Glossary	3
2.	Getting started	4
2.1.	How this all works	4
2.2.	Who needs to use this and what your responsibilities are	6
3.	The Animal Pest Framework	7
3.1.	Preparing phase	7
3.2.	Planning phase	21
3.3.	Pre-operational phase	33
3.4.	Operational phase	45
3.5.	Post-operational phase	52
3.6.	Reporting phase	60
4.	Document records	64
4.1.	Complete list of resources	64
4.2.	Document history	68

1. What you need to know

1.1. Purpose and scope

The purpose of this SOP is to explain the procedures and standards for planning and managing operations to control or eradicate animal pests by using vertebrate pesticides, broad scale application of insecticides, traps, and hunting. It applies to work (on or off Public Conservation Land) that is led and managed by DOC, whether undertaken by DOC staff, DOC volunteers or contractors to DOC.

This SOP does not apply to:

- Incursion responses on islands when following the Obtaining DOC permission for rodenticide use in island incursions SOP [DOC-2751605](#)
- Use of pesticides for rodent or insect control in and around huts, buildings and nurseries
- Use of insecticides where the purpose is not for biodiversity or biosecurity protection (e.g., to manage recreation values)
- Destruction of individual wasp nests or individual ant nests

This supports effective planning of animal pest operations for conservation. Proper planning helps to achieve the project's desired conservation outcomes. This document is intended to ensure that the activity is performed consistently, safely and to meet legislation.

1.2. Accountabilities

Managers are accountable for assigning the roles in Section 1.3 to suitable staff members. Once assigned the task by their manager, the staff member is accountable for meeting the standards contained in this SOP.

Managers, or higher levels of management, are authorised to approve variations from the SOP requirements and are accountable for those decisions. They are required to use their professional judgement and to seek advice, or to escalate when in doubt. All decisions should be documented. It is expected that variations from requirements in this SOP will be the exception rather than the norm, and that legal (i.e. legislation and judge-made laws) and health and safety requirements are compulsory. Common sense should prevail in the case of exceptional or emergency field situations.

Please note: the consequences of non-compliance with, and variations from, the SOP requirements are possible legal non-compliance.

The standards meet requirements under various legislation, including the:

- Hazardous Substances and New Organisms Act 1996
- Health and Safety at Work (Hazardous Substances) Regulations 2017
- Agricultural Compounds and Veterinary Medicines Act 1997
- Resource Management Act 1991

1.3. Prerequisites

Operational planners must have successfully completed the Animal Pests Operational Planning course or be experienced in operational planning of animal pest operations using this SOP. It is recommended that operational planners have experience or knowledge of the relevant method and pest.

Site leads for aerial 1080 operations must have successfully completed the Aerial Baiting for Landscape Predator Control Course. The site lead is the person with decision making authority over field operations on the day(s) of aerial baiting. It can be the operational planner, or could be the Incident Controller, or the Air operations manager (the latter two are roles defined in National Predator Control Programme operational plans).

Peer reviewers must have successfully completed the Animal Pests Operational Planning course or be experienced in operational planning of animal pest operations. They must have experience or knowledge of the relevant method and pest. They must not have been involved in planning the operation.

Readiness checkers must have successfully completed the Animal Pests Operational Planning course or be experienced in operational planning of animal pest operations. They must have experience or knowledge of the relevant method and pest. They must not have been involved in planning the operation. They can be the same person who completed the peer review.

1.4. Glossary

Key terms are defined within the relevant sections. Refer to Animal Pests SOP Definitions and FAQs [docDM-51708](#) for a complete definition list.

2. Getting started

2.1. How this all works

DOC animal pest operations are planned and managed by following the process set out in this SOP. This SOP process is known as the Animal Pest Framework. The start point is that a site and outcomes have been identified for management, and the process consists of the following six phases:

- Preparing phase
- Planning phase
- Pre-operational phase
- Operational phase
- Post-operational phase
- Reporting phase

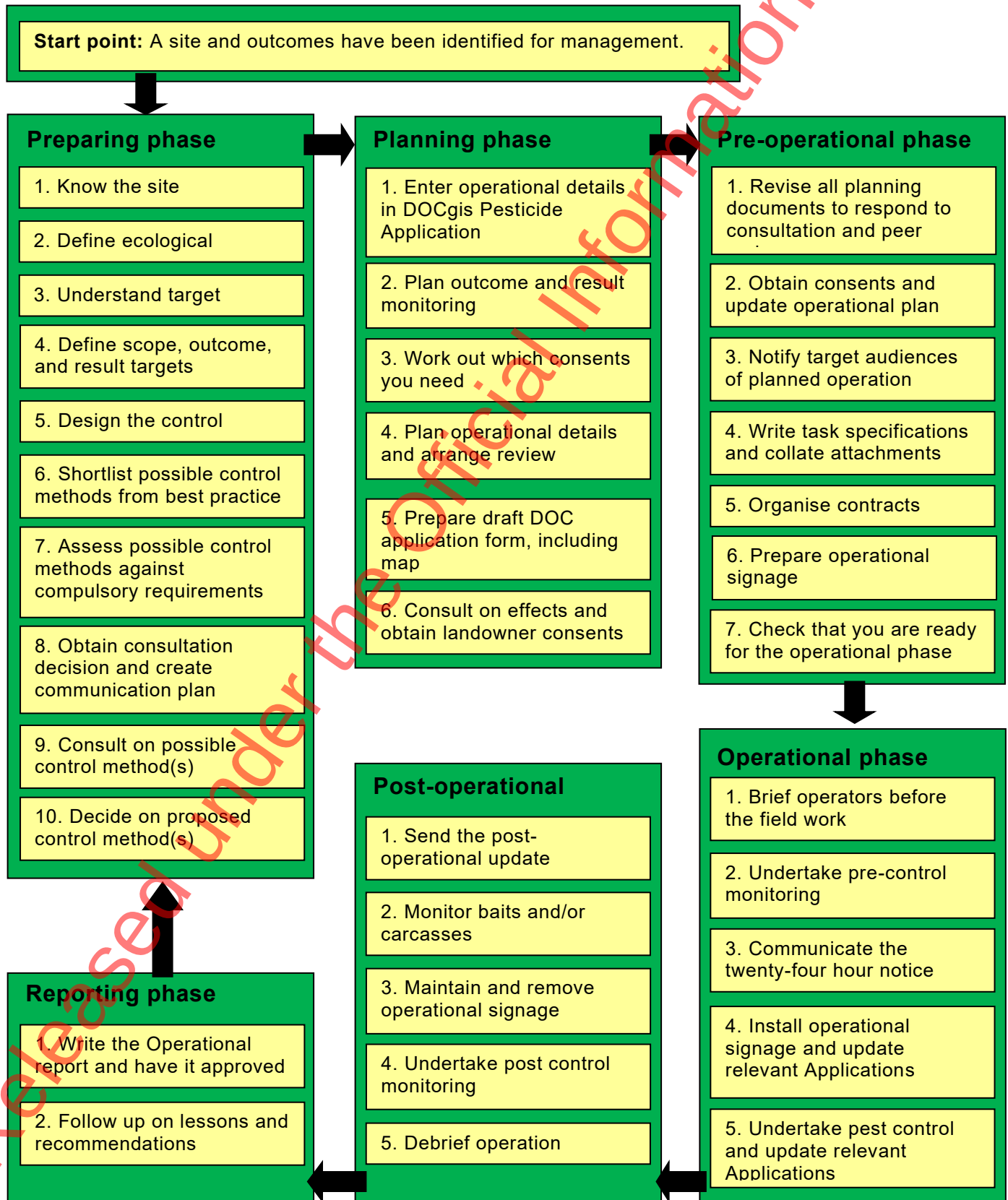
Each phase has several steps. Some steps do not apply to all animal pest operations (e.g., some steps only apply where proposed methods include pesticides) and this is stated at the start of each step. The process is not strictly linear and, in some cases, all the steps in a phase may not be complete before some of the steps in the next phase need to be started.

Standards are stated within the steps of the Animal Pests Framework. These standards must be met for DOC animal pest operations and form the basis for operational readiness checks and audits. A list of all standards from this SOP can be found on the Compliance register template [docDM-1475273](#).

Some steps do not have standards. These steps are recommended for DOC animal pest operations but are not compulsory. In lieu of standards, these steps include points to check that the step has been completed fully.

Standards/requirements of other SOPs and systems (e.g. the Health and Safety Management Systems Manual) are not repeated in this SOP.

The diagram below shows the phases and steps of the Animal Pest Framework.



2.2. Who needs to use this and what your responsibilities are

Operations Manager

- Assigns roles to staff meeting the requirements in [Section 1.3](#)
- Decides what level of consultation will take place and records this in the communication plan in [Preparing phase Step 8](#)
- Reviews and approves the operational report in [Reporting phase Step 1](#)

Operational planner

- Plans, manages and reports on a pest operation, meeting all applicable standards in this SOP.
- Where tasks are contracted out, the contractors are responsible for meeting the applicable standards as included in the contract. The operational planner manages the contract to ensure this happens.

Peer reviewer

- Supports the operational planner with independent comments and questions early in the process, when there is still flexibility for significant changes if necessary.
- Provides a written independent review of the operational plan in [Planning phase Step 4](#) before consents are obtained.

Readiness checker

- Increases confidence that everything is ready for the Operational phase through an independent review of the operational plan and associated documents [in Pre-operational phase Step 7](#) to identify non-compliance, gaps, and risks.
- Works with the operational planner to develop a plan to remedy the priority issues before the operation goes ahead.

Senior Planning Advisor, National Operations

- Follows [Reporting phase Step 1](#) to submit aerial 1080 operational reports to the EPA.

3. The Animal Pest Framework

3.1. Preparing phase

The Preparing phase is the starting point of the Animal Pest Framework. You have identified a site and outcomes for management.

The Preparing phase has the following steps:

- Step 1: Know the site
- Step 2: Define the ecological problem
- Step 3: Understand the target pest(s)
- Step 4: Define scope, outcome, and result targets
- Step 5: Design the control
- Step 6: Shortlist possible control method(s) from best practice
- Step 7: Assess possible control methods against compulsory requirements
- Step 8: Obtain consultation decision and create communication plan
- Step 9: Consult on possible control method(s)
- Step 10: Decide on proposed control method(s)

Work through the steps to make key decisions about what you are going to do. Steps 1 to 3 are where you gather the information needed to make these decisions. Steps 4 and 5 are where you make these decisions that determine the whole direction of the project.

For National Programmes the deliverables for some of these steps may be provided/proposed through programme-level plans, 'prescriptions', or other guidance. The operational planner should review this against the process and check points for each step. The operational planner is still responsible for meeting any standards for each step.

For eradication operations, scoping informs the first 4 steps within this phase but should have been undertaken well before the start point of this framework. The feasibility assessment informs elements of all steps in this phase.

At the end of the Preparing phase, you will have a proposed pest control method.

3.1.1. Preparing phase step 1: Know the site

This step applies to all operations. You can expect it to take 1 – 5 days to complete.

The objectives of this step are:

- To understand all the background information about the site that influences management decisions and make it available to those reviewing the plan.
- To begin your operational plan, where you will record control design, logistics, and project management details.

Process

Step 1: Write down what you know about the site and gather information sources. This includes:

- Conservation values
- Threats (including pest density)
- Issues
- Other management

Step 2: Read and make notes for the site description. Identify any gaps to fill.

Step 3: Visit the site and talk to people.

Step 4: Create an operational plan and complete the site description. The level of detail for your site description should match the size, complexity, and public interest in your operation.

Step 5: Consider creating a Project Homepage for the operation, where you can list and hyperlink to all documents related to the project. Documents created during the operational planning process that are in hardcopy form should be scanned into the document management system, with links recorded in the relevant planning document.

Deliverable: Your operational plan with the site description completed.

Standards

1. It is compulsory to have an operational plan for all DOC animal pest control operations. All vertebrate pesticide operations must use the best practice operational plan template as a minimum. Other operations may use another format.
2. Site-led operations for animal pest control are grouped into one operational plan only if all treatment blocks:
 - a. Are adjacent (i.e., are at the same location); and/or
 - b. Have the same control method(s) across all blocks (even if they are at different locations)

Pest-led operations can be included in one operational plan for a single Region.

3. The operational plan is written to:
 - a. Cover the information required by the prompts in the template
 - b. Be specific and factual
 - c. Align with definitions
 - d. Use concise plain English
4. The operational plan includes a site description that covers values, threats, issues and other management at the site.

Resources

- Your operational plan, created using the appropriate template or one of the examples:
 1. Best practice operational plan template [docDM-1475373](#)
 2. WAM hunting operational plan template [DOC-7723431](#)
 3. Best practice operational plan aerial 1080 example [DOC-5488902](#)
 4. Best practice operational plan bait stations example [DOC-5916783](#)
 5. Best practice operational plan DOC200 stoat trapping example [DOC-5949271](#)
 6. WAM goat hunting operational plan example [DOC-5918086](#)
- Eradication operational planning documents:
 1. Overview of planning pest eradications [DOC-7711995](#)
 2. Eradication scoping report template [DOC-7756009](#)
 3. Feasibility assessment template [DOC-7110779](#)
 4. Project Management Plan template [DOC-7754931](#)
 5. Operational design and logistics template [DOC-7756004](#)
 6. Task breakdown example spreadsheet [DOC-7878965](#)
- Project Homepage: NPCP example [DOC-5492427](#)
- Project Homepage: WAM example [DOC-7723708](#)
- Visit the site yourself
- [Bioweb](#) for inventory data (logon access required)
- The Conservation management strategy applicable to your operation
- Monitoring or survey reports
- People who have lived, worked or hunted in the area
- Historical accounts of the area
- Maps (topographical, geological, vegetation, soil)
- [Information management and library](#) (for publications or films relating to the site)
- [Pestlink](#) reports (logon access required), previous operational reports [DOC-7194322](#) or office file on management history and past recommendations
- Previous operational plans
- Information on sites and outcomes
- Definitions:
 1. Pest-led operations: In pest-led operations, the aim is to eradicate incursions or prevent the spread of a single target pest.
 2. Site-led operations: Pest operation to protect the natural values of a priority area from the impacts of animal pest species.
 3. Treatment area: The area that will receive pest control. For pesticides this is the area for which permission (DOC and Public Health) is sought or held. This is the area entered into the DOCgis Pesticides Application and used for public notification. Treatment area boundary has a corresponding meaning.

4. Treatment block: A subset of a treatment area. A treatment area is broken down into treatment blocks when blocks are physically separated or when different management methods are applied. Treatment block boundary has a corresponding meaning

3.1.2. Preparing phase step 2: Define the ecological problem

This step applies to all operations. You can expect it to take less than 1 hour to complete.

The objective of this step is to develop a complete picture of the problem (i.e., all the pressures on the biodiversity assets you want to protect and how they interact) to give a reality check on the outcome for the project.

Process

Step 1: Look at the outcomes agreed for this site at the start point.

Step 2: Identify the conservation values (from Preparing phase step 1) that you want to protect.

Step 3: Identify the biodiversity threats to those conservation values.

Step 4: Draw the connections in a simple food web.

Step 5: Summarise this in an ecological problem statement.

Deliverable: Food web and ecological problem statement.

Checkpoints

You will have completed this step when:

- You know what you are trying to achieve (biodiversity or otherwise).
- You have a food web that shows:
 1. The biodiversity conservation values you want to protect.
 2. The biodiversity threats affecting the conservation values at the site.

Resources

- Involve DOC science and technical advisors (e.g., from Who's Who in Animal Pests [docDM-98043](#))
- Relevant threatened species recovery plans
- The Conservation management strategy applicable to your operation
- [Information management and library](#) for relevant publications (e.g., Ramsay and Veltman 2005, Tompkins and Veltman 2006, Sinclair and Byrom 2006)
- Ecological problem statement examples [docDM-1552765](#)

3.1.3. Preparing phase step 3: Understand the target pest(s)

This step applies to all operations. You can expect it to take 2 hours to 2 days to complete.

The objective of this step is to understand the strengths, weaknesses, and basic ecology of the target pest(s) to design effective control methods.

Process

Step 1: Find reference information for each target pest species.

Step 2: Read and consider the information. Be cautious of information that is out of date or not relevant to your site (e.g., different threats or management history).

Step 3: Gain a better understanding of the breeding and behavioural factors that will affect your project.

Deliverable: Notes on the ecology of your target pest(s).

Checkpoints

You will have completed this step when:

- You understand the strengths and weaknesses of the target pest(s).
- You have notes on the ecology of your target pest(s).
- You have related the information you gathered to the population of the target pest at your site.

Resources

- The Handbook of New Zealand Mammals 3rd edition, editors CM King and DM Forsyth (2021)
- [Pestlink](#) reports (login access required) and previous operational reports [DOC-7194322](#) for past attempts to control this pest at your site or other sites
- Section 3 of the [Current agreed best practice](#) document for your target pest
- New Zealand Freshwater Fishes, A Natural History and Guide, by M R McDowall (1990)
- Argentine ants in New Zealand
<https://argentineants.landcareresearch.co.nz/index.asp>
- PF2050 Practical guide to trapping
<https://www.doc.govt.nz/globalassets/documents/conservation/threats-and-impacts/pf2050/trapping-guide-pf2050.pdf>
- Pest detective
<https://web.archive.org/web/20220121175632/http://pestdetective.org.nz/>
- [Information management and library](#) for other publications
- Talk to specialists, scientists and others with experience of managing this pest (e.g., from Who's Who in Animal Pests [docDM-98043](#))

3.1.4. Preparing phase step 4: Define scope, outcome, and result targets

This step applies to all operations. You can expect it to take less than 1 hour to complete.

The objective of this step is to determine which biodiversity threats identified in Preparing phase step 2 this project will influence. This will help you identify the target pest(s) and set outcome and results targets.

Process

Step 1: Look at the players in your food web.

Step 2: Identify which interactions are critical to your outcome. Decide on the long-term timeframe for achieving the outcome.

Step 3: Decide the scope (i.e., which pests will be managed by **this** project). Identify exclusions and linkages to other work.

Step 4: Define the logical outcome target to measure. Outcome targets state the measure of success for the natural heritage asset you are managing in a measurable form in a specified period.

Step 5: Define the result target needed to achieve this. Result targets state the measure of pest abundance (or reduction) you want to achieve, in a measurable form in a specified period.

Deliverable: Scope and targets completed in your operational plan.

Standards

1. The operational plan states which pests will be managed and includes the scope, outcome target and result target for this operation.

Resources

- Your operational plan
- Your food web from Preparing phase step 2
- Writing SMART targets [docDM-340202](#)
- [Information management and library](#) for publications on pest density/native response relationships
- Inventory and Monitoring Toolbox <https://www.doc.govt.nz/our-work/biodiversity-inventory-and-monitoring/>
- Relevant threatened species recovery plans
- Past operational and monitoring reports
- Talk with specialists, scientists and others with experience of managing these assets

3.1.5. Preparing phase step 5: Design the control

This step applies to all operations. You can expect it to take 1 – 2 days to complete.

The objective of this step is to plan the timing, scale, and frequency of control to meet your outcome target. This step focuses on the big picture of achieving the outcome, potentially over several operations.

Process

Step 1: Gather information from previous steps:

- Preparing phase step 1: Current pest density
- Preparing phase step 2: Vulnerability of biodiversity conservation value to target pest
- Preparing phase step 3: Ecology of target pest
- Preparing phase step 4: Outcome and result targets

Step 2: Design the control:

- How big? (scale of control needed)
- When? (time of year)
- How often? (planned frequency of control into the future)

Step 3: Review the scale and frequency needed to achieve the outcome target, compared to what is specified in your business plan. If this is much larger or more frequent than stated, discuss it with your manager.

Deliverable: Control design completed in your operational plan.

Standards

The following table contains the standards that must be followed for this step.

1. The operational plan includes a control design which:
 - a. Describes the scale of control needed
 - b. Identifies the time of year control would have most effect
 - c. Predicts the planned frequency of control into the future to achieve and sustain the outcome

Resources

- Your operational plan
- The information from work already done in previous steps of the Preparing phase, i.e.:
 1. Site description (in your operational plan)
 2. Food web and ecological problem statement
 3. Notes on the ecology of your target pest(s)
 4. Scope and targets (in your operational plan)

- [Information management and library](#) for relevant publications
- Talk with specialists, scientists and others with experience of managing this pest (e.g. from Who's Who in Animal Pests [docDM-98043](#))

3.1.6. Preparing phase step 6: Shortlist possible control method(s) from best practice

This step applies to all operations. You can expect it to take less than 1 hour to complete.

The objective of this step is to shortlist control methods that are technically viable for the outcome and result targets set for the site. Community views and other constraints will be considered in later steps to identify the proposed control method(s).

Process

Step 1: Select your target pest(s) from the list of documents in "Current Agreed Best Practice for Animal Pest Control". For pests not covered by the Current Agreed Best Practice review previous operational reports, consult other publications, and talk with specialists and others with experience managing this pest

Step 2: Review the information about various control methods (Section 4 "Choose Your Control Method" of the best practice document) to decide which are technically viable. Consider past control methods used at this site.

Step 3: Select possible control methods.

Deliverable: Shortlist of possible control methods.

Checkpoints

You will have completed this step when:

- You have eliminated control methods that are not suited to:
 1. Your site
 2. Your ecological problem
 3. Your outcome and result targets
 4. The scale and timing of the operation

Resources

- [Current agreed best practice for animal pest control](#)
- [Pestlink](#) reports (login access required) and previous operational reports [DOC-7194322](#)
- Pest management history from Preparing phase step 1
- DOC Pesticide Information Reviews [docDM-25413](#)

3.1.7. Preparing phase step 7: Assess possible control methods against compulsory requirements

This step applies to all operations. You can expect it to take less than 1 hour to complete.

The objective of this step is to shortlist methods by eliminating any that are not accepted for DOC use or for which you cannot meet compulsory standards.

Process

Step 1: Identify the policies and SOPs relevant to your shortlisted control methods (e.g., Firearms SOP, Management of Hazardous Substances SOP, Electric Fishing SOP).

Step 2: Review the relevant procedures and standards to see if there are requirements you cannot meet. Eliminate those methods from your shortlist.

Step 3: If your proposed methods include pesticides, check the Status List to find out if the pesticide use(s) you are considering are accepted for use. Refer to the Status List user guide for information on how to use this resource.

Each accepted pesticide use has a DOC Performance Standard sheet that contains DOC and legal requirements that apply. Review the DOC Performance Standards sheets for the proposed pesticide use(s) to ensure you can meet all compulsory aspects (e.g., product label requirements, qualification requirements, compulsory performance standards and information needs).

Step 4: If your proposed methods include traps, use the Trap Status List to find out if the trap system(s) you are considering are accepted for use. Refer to the Status List user guide for information on how to use this resource.

Each accepted trap system has a DOC Performance Standard sheet that contains DOC and legal requirements that apply. Review the DOC Performance Standards sheets for the proposed trap system(s) to ensure you can meet all compulsory aspects (e.g., consistency with the defined trap system, compulsory performance standards and information needs).

Deliverable: Shortlist of control methods.

Standards

The following standards must be followed for pesticide or traps:

1. Accepted pesticide uses are proposed for operations.
2. Accepted trap systems are proposed for operations (unless the operation or trap use is outside of the scope of the Trap Status List).
3. Operations using pesticide uses or trap systems with compulsory information needs are designed to provide the required information.

Resources

- [Policies, Standard Operating Procedures and Guidelines](#) intranet page
- [Wild Animals Management programme](#) intranet page
- [Animal pest management resources](#) intranet page

- Status List [docDM-22655](#)
- Trap Status List [DOC-5620413](#)
- Status List user guide [docDM-95853](#)
- DOC Performance standards sheets (linked from the Status List)
- Target pests for aerially applied 1080 pellets [DOC-2649524](#)
- Field Trials for Pest Operations SOP [docDM-51573](#)
- Inventory and Monitoring toolbox <https://www.doc.govt.nz/our-work/biodiversity-inventory-and-monitoring/>
- Definitions:
 1. Pesticide use refers to a specific technique involving one pesticide, its toxic loading, bait type, and application method. For example, aerial application of cereal pellets containing 1.5 g/kg 1080; 8g/kg cholecalciferol hard paste in bait bags
 2. Trap system refers to a specific technique involving one trap type/model and how it is set (this includes additional equipment such as covers). For example DOC 200 in tunnel, double or single set; No.1 double coil spring leghold unpadded, ground set/raised set.

3.1.8. Preparing phase step 8: Obtain consultation decision and create communication plan

This step applies to all operations. You can expect it to take 1 – 2 days to complete.

The objective of this step is to make a clear decision about the level of consultation. This is the start of the communication plan for your operation.

Process

Step 1: Obtain a consultation decision from the Operations Manager. The Operations Manager is accountable for deciding the level of consultation and recording this decision and reasoning in the communication plan. There are three possible outcomes:

- Consultation on the possible control methods and (later) the effects of the proposed control methods.
- Consultation on the effects of the operation.
- No consultation (notification only, as this is always required).

Consultation is compulsory if your operation includes any of the target audiences or methods specified in the standards for this step.

Step 2: Create a communication plan for your operation, using the best practice Communication Plan template or another format that meets the standards.

Deliverable: Consultation decision recorded in the communication plan.

Standards

1. The Operations Manager decides what level of consultation (i.e., no consultation, consultation on effects only, or consultation on possible control methods) will take place and records this decision and the reasoning in the communication plan.
2. Consultation on effects with iwi and/or hapū is compulsory for aerial 1080 operations and recommended for other techniques.
3. It is compulsory to consult on effects with all occupiers and (as far as practicable) owners of land included in and adjacent to the proposed treatment area and loading site(s).
4. It is compulsory to consult on effects with all grazing licence holders.
5. For operations using rotenone under the Resource Management (Exemption) Regulations 2017, it is compulsory to consult on effects with the relevant Fish and Game Council.
6. The communication plan identifies:
 - a. The decision on consultation
 - b. The objectives for consultation and notification
 - c. The background to the operation (why it is being done)
 - d. The issues (people and communication related) and key messages
 - e. A list of communication tools or resources that will be used
 - f. Who will be consulted
 - g. Who will be notified, including those legally required and stipulated in consents
 - h. The purpose of consulting or notifying each target audience
 - i. Landowner and occupier consent conditions
 - j. Landowner and occupier reference to link to their location on the permission map
 - k. Who is responsible and target dates for completion
 - l. What method(s) will be used to notify or consult each target audience
7. The communication plan is written before consultation begins.
8. The communication plan is maintained as consultation and notification progress.

Resources

- Communication plan template user guide [docDM-1108789](#)
- Communication plan template [docDM-22868](#)
- Communication plan – complex/new operation example [docDM-22869](#)
- Communication plan – simple/maintenance operation example [docDM-22870](#)
- Consultation Policy [olddm-780975](#)

- Consultation Guidelines [olddm-780974](#)
- The community engagement plan for your office
- Definitions:
 1. Consultation involves a willingness to adapt the proposed operation as a consequence of the information gained from consultation. According to DOC's Consultation Policy olddm-780974: 'Consultation is a stage in the decision-making process where DOC seeks community and tangata whenua views on issues and proposals. The DOC keeps an open mind about the final decision it might make and makes its final decision after consultation has been completed.'
 2. Notification is informing local community, stakeholders, visitors and users about DOC pest operations and pest operations on lands managed by DOC.
 3. Consultation on possible control methods means that your control method is not yet fixed, i.e. 'This is the issue with possum impacts we're having at this site and here are the technically viable options for possum control we've identified. What are your views on these methods?'
 4. Consultation on effects means that your control method has been decided and is not open for discussion. Open for discussion are the concerns people have about the operation and how modifications to the operational plan may satisfy these concerns.
- [Pestlink](#) reports (login access required) and previous operational reports [DOC-7194322](#) for pest operations affecting the same community
- Understanding the RMA for animal pest operations [docDM-96158](#)
- Past communications plans for the same community
- Seek community relations/partnerships advice
- Tiakina Ngā Manu Engagement and Communications 4-year Strategy 2020-2024 [DOC-6315626](#)
- NPCP Guide to engaging with our Treaty Partner and communities at place [DOC-6290966](#)

3.1.9. Preparing phase step 9: Consult on possible control method(s)

This step applies if the decision made in Preparing phase step 8 was to consult on methods. You can expect it to take weeks to months to complete.

The objective of this step is to seek community and tangata whenua views on the possible control methods to be used in the operation. DOC keeps an open mind about the final decision and makes its final decision after consultation is completed.

Process

Step 1: Consult with your target audiences using the consultation tools identified in the communication plan and meeting the standards. Compulsory target audiences for consultation are given in Preparing phase step 8.

Step 2: Record the outcomes of consultation by noting all phone calls and visits in the communication plan, including those for people with whom direct contact could not be made. Note the times, dates, full names, and what was said.

It is important to record not just whether a person or group supports the proposed operation, but how they think the proposed operation will impact them and the environment.

It is necessary to understand the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, valued flora and fauna, and other taonga. It is therefore important to record (where relevant information is provided):

- Whether the operation likely to impact on the productivity and life-sustaining quantity and quality of traditional Māori food resources (mahinga kai), New Zealand's indigenous flora and fauna, other flora and fauna valued by Māori, water, land, air, natural habitats and ecosystems and other natural resources valued by Māori.
- Whether the operation is likely to impact the protection and enhancement of people, native or valued flora and fauna, land, waterways, air, traditional Māori values and practices, and the Māori knowledge system and world view.
- Whether the operation likely to impact on the ongoing capacity and capability of Māori to develop economically; and on the ongoing participation of Māori in the generation of economic benefit, and the burden of economic cost.
- Whether the operation is likely to impact the ongoing management by Māori of their cultural and natural resources, Ongoing rights of Māori to develop culturally, socially, spiritually and physically; the implementation of the Treaty principles, and land.

Deliverable: Communication record completed for consultation on possible methods.

Standards

1. Visits or phone calls are used where landowner/occupier consent is being sought.
2. A Consultation fact sheet covering the following information about the proposed operation is given to all target audiences, or the information is communicated to them in other ways:
 - a. Location and size of proposed treatment area
 - b. Why control is needed at that site (covering values, pest problem, and intended conservation outcome)
 - c. Past monitoring information demonstrating the benefits of pest control (if available for that site/species)
 - d. Purpose of the consultation and any parameters that are fixed, including seeking to understand how the target audience considers the proposed operation could affect them, the indigenous flora and fauna and other natural resources, their ability to protect and manage and use those resources, and how it could impact their wellbeing
 - e. Opportunities for consultation
 - f. Likely timeframe of the proposed operation

- g. Details of the permissions required and the consultation/notification process
 - h. The job title and organisation of the person responsible for the operation, and the address and phone number of their office. If these are details of a contractor, also include details of the local DOC office.
 - i. A map of the proposed treatment area that clearly shows the boundaries. Include districts, roads and other commonly known features that may identify the place
3. A record is kept of all phone calls and visits in the communication plan, including those for people with whom direct contact could not be made.
4. The outcomes of consultation are recorded in the communication plan.

Resources

- Your communication plan
- Consultation fact sheet template [docDM-22872](#)
- Consultation fact sheet example [docDM-22874](#)
- NPCP Guide to engaging with our Treaty Partner and communities at place [DOC-6290966](#)
- NPCP resources for engagement and communication [DOC-5998295](#)
- WAMP resources for engagement and communication [DOC-7624668](#)
- Wilson and Cannon (2005) Community consultation processes for aerial 1080 applications Science for Conservation No 247
<https://www.doc.govt.nz/globalassets/documents/science-and-technical/sfc247.pdf>
- Seek community relations advice

3.1.10. Preparing phase step 10: Decide on proposed control method(s)

This step applies to all operations. You can expect it to take 1 – 2 days to complete.

The objective of this step is to make a clear decision about which control method(s) will be used to achieve the outcome targets. This decision marks the end of the preparing phase.

Process

Step 1: Look at the shortlists of possible control methods from Preparing phase steps 6 and 7.

Step 2: Review consultation outcomes from Preparing phase step 9, if completed.

Step 3: Review past control methods used at this site. If using pesticides, check the DOC Pesticide Information Review for relevant information (e.g., efficacy differences between similar products) and seek advice from technical specialists if necessary.

Step 4: Decide on the proposed control methods and enter them into your operational plan.

Deliverable: Proposed control methods entered in your operational plan.

Checkpoints

You will have completed this step when:

- You have decided on the proposed control method(s) for the site and entered them into your operational plan.

Resources

- Your operational plan
- Shortlist of possible control methods from Preparing phase steps 6 and 7
- Consultation outcomes in communication plan from Preparing phase step 9, if completed
- Management history from [Pestlink](#) reports (login access required) and previous operational reports [DOC-7194322](#) for this site
- DOC Pesticide Information Reviews [docDM-25413](#)

3.2. Planning phase

In the Planning phase, you plan the details of how you will carry out the operation.

The Planning phase has the following steps:

- Step 1: Enter operational details in DOCgis Pesticides Application
- Step 2: Plan outcome and result monitoring
- Step 3: Work out which consents you need
- Step 4: Plan operational details and arrange review
- Step 5: Prepare draft DOC application form, including map
- Step 6: Consult on effects and obtain landowner consent

You start with a proposed control method, and after working through the steps, you are ready to act on your operational plan by the end of the phase.

3.2.1. Planning phase step 1: Enter operational details in DOCgis Pesticides Application

This step applies when proposed methods include pesticides. You can expect it to take less than 1 hour to complete.

The objective of this step is to ensure that information about the proposed operation is available on the DOCgis Pesticides Application.

Process

Step 1: Define the treatment area and treatment block(s) in the DOCgis Pesticides Application. You may need to capture a new shape or amend an existing shape.

Step 2: Complete all the required information for the treatment area and each defined treatment block. Use the Caution period calculator to determine the recommended caution period for each treatment block. These details can be refined and updated as planning progresses.

Step 3: Decide and set the status:

- Proposed – publish: Your proposed operation will be visible on the external viewer of the Pesticide Summary.
- Proposed – don't publish: Use this status if there is sensitivity around the proposed operation. It will not be visible on the external viewer of the Pesticide Summary.

The DOC Pesticide Summary is a list of pesticide operations on lands administered by DOC. It is published on the DOC website and updated daily.

The purpose of the DOC Pesticide Summary is to:

- Comply with Ministry for Primary Industries (MPI) requirements, so certified suppliers can verify that wild animals presented to primary processors have been taken from outside of poisoned areas or their associated buffer zones.
- Adequately inform interested parties about pesticide operations on lands administered by DOC.

If the Pesticide Summary information is incorrect or incomplete, the public may not be adequately notified of the presence of pesticides on public conservation land. This could result in the harvesting of contaminated meat for human consumption, which has serious potential consequences.

If the proposed treatment block(s) are not published at this stage, they must be published by the end of the Pre-operational phase step 1.

Deliverable: Treatment block(s) where pesticides are proposed as the control method are defined in the DOCgis Pesticides Application.

Standards

1. All the proposed treatment block(s) that include pesticides are accurately defined in the DOCgis Pesticides Application.
2. The information in the DOCgis Pesticides Application is kept up to date throughout the operation.

Resources

- Your operational plan
- Pesticide summary information for operational planners [DOC-5920806](#)
- Caution period calculator [docDM-690617](#)
- [DOCgis Pesticides Application](#)

- [DOCgis Pesticides Application user guide](#)
- DOCWiki https://docwiki.depcn.internal/wiki/Pesticide_Application
- GIS analyst support for aerial operations
- Definitions:
 1. The caution period is the timeframe (usually number of months) after the last date of bait application or bait removal when DOC expects that the risk of pesticide residues to the public will have passed.
 2. Buffer zone (hunting): The area outside the boundaries of the treatment area from which meat for human consumption should not be procured. The definition from the Animal Products Notice: Production, Supply, and Processing is “the land situated between the boundaries of an area of land that has been exposed to poison and an area of land where it is acceptable for animals to be procured, measured as a straight line on a horizontal plane”.

3.2.2. Planning phase step 2: Plan outcome and result monitoring

This step applies to all operations. You can expect it to take 1 – 5 days to complete.

The objective of this step is to design result monitoring and begin the process for outcome monitoring.

Process

Step 1: Use the outcome and result targets you developed in Preparing phase step 4.

Step 2: Find the best methodology in the Inventory and Monitoring Toolbox. Review your targets to match your method choice.

Step 3: Follow the methodology standards to plan the monitoring and how data will be recorded and analysed. If someone else is managing the outcome monitoring, give them the information they need for their monitoring project plan.

Deliverable: Proposed monitoring entered in your operational plan, and result and/or outcome monitoring plan.

Checkpoints

You will have completed this step when:

- Your operational plan outlines the proposed monitoring and refers to any separate plans.
- Monitoring plans explain how monitoring will be carried out, recorded, and analysed for this project.

Resources

- Outcome and result targets in your draft operational plan
- Inventory and Monitoring Toolbox <https://www.doc.govt.nz/our-work/biodiversity-inventory-and-monitoring/>

- Talk with specialists, scientists and others with relevant monitoring experience
- [Current agreed best practice for animal pest control](#)
- Definitions:
 1. Result monitoring: In the context of animal pest operations this means monitoring undertaken to determine changes in pest animal abundance or to estimate pest animal abundance after a control operation to compare against a predetermined target.
 2. Outcome monitoring: The measurement of change of the characteristic of interest of a natural heritage asset. This type of monitoring provides information about whether outcome targets have been achieved.

3.2.3. Planning phase step 3: Work out which consents you need

This step applies to all operations. You can expect it to take less than 1 hour to complete.

The objective of this step is to identify the consents you need so you can plan to obtain them.

Process

Step 1: Identify the consents you need for your proposed animal pest operations using the flow charts and information in docDM-1475279.

Step 2: Record the required consents in your operational plan.

Step 3: If using pesticides, update the compliance information for your treatment area in the DOCgis Pesticides Application.

Step 4: Update your communication plan to include the parties from whom you need consent.

Deliverable: Required consents recorded in your operational plan. If using pesticides, compliance information completed for your treatment area in the DOCgis Pesticides Application.

Standards

1. The consents needed for an operation are identified correctly in the operational plan, and if pesticide uses are proposed, in the DOCgis Pesticides Application.
2. Land occupier consent is identified where there are any holders of grazing licences, lessees or other occupiers within the area included in the operation (e.g. access ways). The only exception is where the terms of the grazing licence specify that DOC can manage the land without their consent. In these cases, licensees must be notified.
3. Landowner consent is identified where the operation includes riparian strips and paper roads to be obtained from the relevant District or City Council.
4. For resource consent, a Certificate of Compliance is sought from the consent authority for controversial operations or advice.

Resources

- Working out which consents you need for animal pest operations [docDM-1475279](#)
- Understanding the RMA for animal pest operations [docDM-96158](#)
- Seek advice from DOC RMA planning and legal staff
- Your operational plan
- Your communication plan
- Your treatment area in the DOCgis Pesticides Application

3.2.4. Planning phase step 4: Plan operational details and arrange review

This step applies to all operations. You can expect it to take 1 – 2 weeks to complete.

The objective of this step is to complete the remaining sections of the operational plan and have it peer reviewed.

Process

Step 1: Complete the remaining sections of your operational plan. Make sure you understand and apply the requirements of other relevant SOPs and systems (e.g., the Management of Hazardous Substances SOP, performance standard sheets for trap systems, procedures for firearm use). Consider the potential and/or actual effects the operation could have on native species, domestic animals and non-target feral animals. Ensure the plan will keep any such risks and effects at an acceptable level.

Step 2: If using pesticides, review your treatment blocks in the DOCgis Pesticides Application. Add or update any information about the control method that may not have been decided until now (e.g., bait size).

Step 3: Have your draft operational plan peer reviewed.

Deliverable: Peer-reviewed operational plan.

Standards

1. The operational information for treatment blocks is clearly separated in each section of the plan where differences exist between them.
2. The operational plan includes at least one map as an appendix to the plan, showing the treatment blocks.
3. The operational plan states the timeframe of the plan in the scope.
4. The operational plan is peer reviewed by someone who meets the requirements in section 1.3

Resources

- Your operational plan
- Your treatment block(s) in the DOCgis Pesticides Application

- [Trapping application](#) intranet page
- Trapping application <https://trap.nz/>
- Performance standard sheets for any trap systems that you are using
- Peer review template [docDM-318907](#)
- Past operational plans, [Pestlink](#) reports (logon access required) and previous operational reports [DOC-7194322](#) for relevant operations
- Management of Hazardous Substances SOP [DOC-6052105](#)
- Method best practice from the [Current agreed best practice](#) document for your target pest
- [Eradication best practice document and planning tools](#)
- Guidelines for aerial 1080 baiting #1: Bucket calibration [DOC-2651373](#)
- Guidelines for aerial 1080 baiting #2: Managing air operations [DOC-2651365](#)
- Guidelines for aerial 1080 baiting #3: Considerations for setting up a helicopter loading site for aerial baiting using cereal pellets [docDM-1560571](#)
- Protection of drinking water – guidance (Appendix 5 of Guidelines for Issuing Permissions for the Use of Vertebrate Toxic Agents)
https://www.health.govt.nz/system/files/2011-11/guidelines-for-issuing-permissions-for-the-use-of-vertebrate-toxic-agents-29_july.pdf
- [Animal pest welfare in firearm and live capture operations](#)
- Hunting safely (ground) one-page SOP [docDM-673812](#)
- Hunting safely (ground) technical document [docDM-751751](#)
- Helicopter aerial hunting SOP [DOC-6262530](#)
- Firearms SOP [DOC-5960893](#)
- Wild animal detection dog-handler team SOP [DOC-6615586](#)
- The safety plan for your operation developed through [Risk Manager](#)

3.2.5. Planning phase step 5: Prepare draft DOC application form, including map

This step applies when proposed methods include pesticides. You can expect it to take 5 – 10 days to complete.

The objective of this step is to draft a DOC application form with an assessment of environmental effects (AEE) (if required) to give consent providers and affected parties under the RMA the information they need to evaluate your proposed operation.

Process

Step 1: For ground-based operations, inform the DOC manager who will be making the decision on your application for DOC permission about your upcoming operation. Ask them to assign a staff member who meets the requirement in the Processing applications for vertebrate pesticides and trapping SOP docDM-1490584 to be the assessor. They will need to coordinate with managers from other offices in the region.

For all aerial operations, an assessor will be assigned by the National Predator Control Programme (NPCP) team when you submit your application.

Step 2: Check the AEE National Standards column of the Status List docDM-22655 to see the AEE requirements. An AEE is required when:

- The AEE National Standards column states that 'an AEE is required' for one or more pesticide uses in the proposed operation; or
- The AEE National Standards column states that 'an AEE may not be required if' certain specifications are met, and not all specifications can be met for all pesticide uses in the proposed operation; or
- The proposed operation meets all specifications for all pesticide uses, but the approving manager (or Operations Manager) decides to require an AEE.

If an AEE may be required at the discretion of the approving manager, ask the assigned assessor to obtain this decision from the approving manager. For aerial operations, seek advice from the NPCP Aerial Permissions Advisor.

Where an AEE is required, you need to either:

- Complete the AEE section of the DOC application form docDM-95868; or
- If resource consent is required, attach the completed Resource Management Act (RMA) AEE form docDM-96227 to your DOC application.

Step 3: Draft your DOC application form to use pesticides docDM-95868. Copy and paste the DOC Performance Standards sheet(s) to cover all pesticide uses and trap systems involved into Appendix 1 of the DOC application form. Complete the grey-shaded boxes on these sheets. The estimated caution period will be set when your application is assessed. Consider additional performance standards to manage risks for your operation and record these on your Performance Standards sheet(s).

Draft a map that meets the standards given in the application form. If you are not using the DOCgis Pesticides Application to create the permission map, ensure you still enter all required information for your treatment blocks into the DOCgis Pesticides Application (e.g., water intakes, warning signs).

Where the AEE section must be completed, ensure that the potential and actual effects of all pesticide uses are considered. Consult with DOC specialists as needed.

Step 4: If preparing an RMA AEE to apply for resource consent, obtain approvals from affected persons under section 95E of the RMA wherever possible. If they have given their approval, they are no longer considered affected persons, and effects on them do not have to be considered by the consent authority (under section 95D(e) of the RMA). They do not have to be notified of the application if a limited notification process is required by the consent authority.

Check whether the consent authority has a form letter for section 95E approvals and/or if they would be happy for you to use the Section 95E approval form. Attach affected person approvals as part of Appendix 3 to the AEE.

Step 5: Have your DOC application form peer-reviewed. The peer reviewer of your application form could be the same person who peer reviewed your operational plan. This step is compulsory for:

- Hand-laid or aerial Pestoff Rodent Bait 20R (pesticide uses 45 or 46)

- Cube root slurry (pesticide uses 100 or 101)
- Xstinguish Argentine Ant Bait / Vanquish Pro (pesticide use 113)

You may decide that a peer review is a good idea for high-profile operations or in other situations.

Deliverable: Draft DOC application form, with assessment of environmental effects included where required.

Standards

1. One application is written for each operational plan (i.e. the same grouping standards as in Preparing phase step 1 apply).
2. The DOC application form uses the current version of the correct MS Word template. All sections of the form are complete, using 'N/A' as required.
3. The DOC application form is written to:
 - a. Cover the information required by the prompts in the template
 - b. Be specific and factual
 - c. Align with definitions
 - d. Use concise plain English
 - e. Use references that are specific and traceable—if a reference is not traceable (e.g., unpublished manufacturer report), include it as an appendix
 - f. Include the correct DOC Performance standards sheets to cover all pesticide uses and trap systems involved
 - g. Use additional performance standards that are specific and auditable, and can be justified
 - h. Include the Assessment of Environmental Effects section where this is required
4. The operational information for treatment blocks is clearly separated in each section of the DOC application form where differences exist between them.
5. The DOC application form:
 - a. Includes at least one map as Appendix 2, meeting the standards given on the DOC application form
 - b. Uses more than one map if the amount of detail becomes too visually cluttered to be clearly understood
6. The DOC application form is peer reviewed by someone who meets the requirements in Section 1.3 where the proposed operation involves:
 - a. Hand laid or aerially applied Pestoff Rodent Bait 20R (pesticide uses 45 or 46);

- b. Cube root slurry (pesticide uses 100 or 101); or
- c. Xstinguish Argentine Ant Bait/Vanquish Pro (pesticide use 113).

Resources

- DOC application form to use pesticides [docDM-95868](#)
- DOC application form with AEE example [DOC-2313380](#)
- Resource Management Act (RMA) AEE form [docDM-96227](#)
- RMA AEE example: Possum control in Mount Malihbu Scenic Reserve [docDM-96243](#)
- Status List [docDM-22655](#), including PAG risk assessments and DOC Performance standards sheets
- Trap Status List [DOC-5620413](#), including TTAG risk assessments and DOC Performance standards sheets
- [Current agreed best practice for animal pest control](#)
- DOC Pesticide Information Reviews [docDM-25413](#)
- Understanding the RMA for animal pest operations [docDM-96158](#)
- Section 95E approval form [docDM-748579](#)
- Seek advice from DOC planning and legal staff and council staff
- Other sources of advice – technical specialists, scientists, stakeholders, and landowners
- Caution period calculator [docDM-690617](#)
- Processing Applications for Vertebrate Pesticides and Trapping SOP [docDM-1490584](#)
- Your treatment block(s) in the DOCgis Pesticides Application

3.2.6. Planning phase step 6: Consult on effects and obtain landowner consent

This step applies if you decided to consult on effects in Preparing phase step 8 or if you need landowner consent. You can expect it to take weeks to complete.

The objectives of this step are:

- To seek community and tangata whenua views on the effects of the preferred control method and the proposed treatment boundary. DOC is open to discussing any concerns people have about the operation and how modifications to the operational plan may address these concerns.
- Obtain landowner and occupier consents.

Process

Step 1: Consult with your target audiences using the tools identified in the communication plan. Compulsory target audiences for consultation on effects (from the standards in Preparing phase Step 8) are:

- Iwi and/or hapū for aerial 1080 operations
- All occupiers and (as far as practicable) owners of land included in and adjacent to the proposed treatment area and, if applicable, loading sites
- All grazing licence holders
- The relevant Fish and Game Council for operations using rotenone under the Resource Management (Exemption) Regulations 2017

Use of the Landowner/occupier visit plan and record template docDM-22881 is recommended. Ensure the boundary on your draft map is correct and that the map is large and clear enough to distinguish all boundaries and relevant features.

Step 2: If you need consent from any landowners/occupiers (as identified in Planning phase step 3), request this during your consultation with them. Be clear about what you need their consent for, which could be:

- To conduct the operation on their land
- For access onto or across their land
- For a helicopter loading site

Ask each person or group for a written statement giving consent for the operation. They may add conditions to this consent. Consider how these conditions might impact your operational plan and amend it as necessary.

It is recommended to get written consent using the Standard letter of consent from landowners or occupiers docDM-95913. (This does not cover section 95E RMA approvals for resource consent obtained in Planning phase step 5).

If consent is refused and an agreement cannot be reached, the Minister of Conservation may authorise entry to kill wild animals or wildlife under certain circumstances (under section 16 of the Wild Animal Control Act 1977 and section 59 of the Wildlife Act 1953). This is decided by the Director Operations or Deputy Director-General of DOC.

Step 3: Record the outcomes of consultation by documenting all phone calls and visits in the communication plan, including those with whom direct contact could not be made. Note the times, dates, full names, and what was said. It is important to record not just whether a person or group supports the proposed operation, but how they think the proposed operation will impact them and the environment.

It is necessary to understand the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, valued flora and fauna, and other taonga. It is therefore important to record (where relevant information is provided):

- Whether the operation likely to impact on the productivity and life-sustaining quantity and quality of traditional Māori food resources (mahinga kai), New Zealand's indigenous flora and fauna, other flora and fauna valued by Māori, water, land, air, natural habitats and ecosystems and other natural resources valued by Māori.

- Whether the operation is likely to impact the protection and enhancement of people, native or valued flora and fauna, land, waterways, air, traditional Māori values and practices, and the Māori knowledge system and world view.
- Whether the operation likely to impact on the ongoing capacity and capability of Māori to develop economically; and on the ongoing participation of Māori in the generation of economic benefit, and the burden of economic cost.
- Whether the operation is likely to impact the ongoing management by Māori of their cultural and natural resources, Ongoing rights of Māori to develop culturally, socially, spiritually and physically; the implementation of the Treaty principles, and land.

Complete the conditions/agreements/risk or threats column for those granting consent or for those identified as having risks or threats. Ensure there is a way to link each consent obtained with the relevant piece of land shown on the DOC permission map (e.g., assign a reference number). Even if you only get verbal consent, note the times, dates, full names, and what was said. This ensures you have a record of contact and consent sought.

If using pesticides, update the required compliance information in the DOCgis Pesticides application.

Step 4: If using pesticides, include the following pages as a consultation record to include as Appendix 3 of your DOC Application Form:

- Introduction
- Consultation on possible methods (if applicable)
- Consultation on effects (if applicable)
- Toolkit

Deliverable: Communication record completed for consultation on effects and landowner/occupier consents obtained.

Standards

1. Appropriate consultation takes place with landowners and occupiers prior to seeking their consent.
2. Visits or phone calls are used where landowner/occupier consent is being sought.
3. All landowner and/or occupier consents are received before the operation proceeds.
4. Landowners and occupiers are consulted when there are changes to the operation after consent has been granted.
5. The operational plan is consistent with all landowner and occupier consent conditions.
6. The communication plan records all landowner and occupier consent conditions and any other agreements made and includes a reference to link their location to the permissions map.
7. Consultation on effects includes ensuring that treatment block boundaries, including sensitive boundaries and exclusion zones are appropriate and correct.
8. A Consultation fact sheet covering the following information about the proposed operation is given to all target audiences, or the information is communicated to them in other ways:

- Released under the Official Information Act
- a. Location and size of proposed treatment area
 - b. Why control is needed at that site (covering values, pest problem, and intended conservation outcome)
 - c. Past monitoring information demonstrating the benefits of pest control (if available for that site/species)
 - d. Details of the control method chosen and why
 - e. Purpose of the consultation and any parameters that are fixed, including seeking to understand how the target audience considers the proposed operation could affect them, the indigenous flora and fauna and other natural resources, their ability to protect and manage and use those resources, and how it could impact their wellbeing
 - f. Opportunities for consultation
 - g. Likely timeframe of the proposed operation
 - h. Details of the permissions required and the consultation/notification process
 - i. Key facts about the method
 - j. Risks and mitigation
 - k. The job title and organisation of the person responsible for the operation, and the address and phone number of their office. If these are details of a contractor, also include details of the local DOC office
 - l. A map of the proposed treatment area that clearly shows the boundaries. Include districts, roads and other commonly known features that may identify the place
9. A record is kept of all phone calls and visits in the communication plan, including those for any parties with whom direct contact could not be made.
 10. The outcomes of consultation and obtaining landowner consents, including any risks and threats identified, are recorded in the communication plan.

Resources

- Your communication plan
- Communication plan – complex/new operation example [docDM-22869](#)
- Communication plan – simple/maintenance operation example [docDM-22870](#)
- Landowner/occupier visit plan and record template [docDM-22881](#)
- Consultation fact sheet template [docDM-22872](#)
- Consultation fact sheet example [docDM-22874](#)
- Consultation fact sheet NPCP template [DOC-6174650](#)
- Consultation fact sheet NPCP example [DOC-7177104](#)
- NPCP resources for engagement and communication [DOC-5998295](#)

- NPCP Guide to engaging with our Treaty Partner and communities at place [DOC-6290966](#)
- WAMP resources for engagement and communication [DOC-7624668](#)
- Protection of drinking water – guidance (Appendix 5 of Guidelines for Issuing Permissions for the Use of Vertebrate Toxic Agents) https://www.health.govt.nz/system/files/2011-11/guidelines-for-issuing-permissions-for-the-use-of-vertebrate-toxic_agents-29_july.pdf
- Generating a concessionaires list [DOC-6278584](#)
- Wilson and Cannon (2005) Community consultation processes for aerial 1080 applications Science for Conservation No 247 <https://www.doc.govt.nz/globalassets/documents/science-and-technical/sfc247.pdf>
- Standard letter of consent from landowners/occupiers [docDM-95913](#)
- Seek community relations advice
- Your treatment block(s) in the DOCgis Pesticides Application

3.3. Pre-operational phase

In the Pre-operational phase, finalise your operational plan and organise everything you need before starting the field work.

The Pre-operational phase has the following steps:

- Step 1: Revise all planning documents to respond to consultation and peer review
- Step 2: Obtain consents and update operational plan
- Step 3: Notify target audience of planned operation
- Step 4: Write task specifications and collate attachments
- Step 5: Organise contracts
- Step 6: Prepare operational signage
- Step 7: Check that you are ready for the operational phase

Work through each step, noting that some can be done in parallel. By the end of this phase, you will have everything in place to start the field work.

3.3.1. Pre-operational phase step 1: Revise all planning documents to respond to consultation and peer review

This step applies to all operations. You can expect it to take 1 day to complete.

The objectives of this step are:

- To gather all feedback and create a revised operational plan.
- If using pesticides, to prepare a final DOC application form.
- To ensure accurate information about the proposed operation is shown on the Pesticides Summary.

Process

Step 1: Review feedback from the Planning phase. This includes:

- Peer review of your operational plan (Planning phase step 4)
- Peer review of your DOC application form (Planning phase step 5)
- Consultation on effects (Planning phase step 6)

Step 2: Decide what changes are necessary as a result. Create a record of the actions you will take in response to feedback, including your reasoning if no action is taken.

Step 3: Revise all documents and the map.

Step 4: If using pesticides, check that the details and dates for your treatment block(s) in the DOCgis Pesticides Application are still accurate and update them if necessary. If the status is still “Proposed – don’t publish,” change it to “Proposed – publish” so that it is visible on the external viewer of the Pesticides Summary. Be aware that treatment block(s) will be automatically retired if the start date in the DOCgis Pesticides Application is reached before the DOC permission is approved.

Deliverables: An updated operational plan and DOC application form (if required) with map ready to submit. The proposed treatment block(s) using pesticides are visible on the Pesticide Summary.

Standards

1. A file note or other record shows what actions, if any, will be taken to respond to consultation and peer review feedback. A reason is given where no action will be taken.
2. The operational plan, DOC Application form (if required) and associated maps are consistent with each other. All changes arising from peer review and consultation are completed.
3. If using pesticides, the information in the DOCgis Pesticides Application accurately reflects the proposed operation and the status of the treatment block(s) are set to “Proposed – publish”.

Resources

- The communication record for your operation
- Your draft DOC Application Form
- Your draft operational plan
- Feedback from peer review
- Seek advice from your manager, technical specialists or community relations specialists in making decisions, as appropriate
- Your treatment block(s) in the DOCgis Pesticides Application

3.3.2. Pre-operational phase step 2: Obtain consents and update operational plan

This step applies when proposed methods include pesticides. You can expect it to take 2 – 8 weeks to complete.

The objective of this step is to obtain the consents identified in Planning phase step 3, so the conditions can be included in the operational plan and communication plan.

Process

Step 1: Prepare applications for the consents required, as identified in Planning phase step 3. These might include applications for public health permission or EPA permission to use sodium nitrite. Consider peer review for consent applications. The DOC application form was already prepared in Planning phase step 5. Landowner and occupier consents have already been obtained in Planning phase step 6.

Step 2: Submit applications to consent providers. To apply for DOC permission for ground-based operations, submit your DOC application form with all the required appendices as stated on the form to the assessor identified in Planning phase step 5. To apply for DOC permission for aerial operations, submit your DOC application form with all the required appendices as stated on the form to the National Predator Control Programme team at npcplogistics@doc.govt.nz

Step 3: When consents are received, review the conditions to identify any conditions you did not expect or have not planned for. Assess the impact of these conditions on your operation, considering budget (dollars and hours), timing, operational targets, additional risks, and conflicts with other consents. Decide whether you can proceed with the operation under these conditions. If the conditions are not workable, your options are:

- Seek to adjust the condition(s) by presenting a case to the consent authority.
- Change the method of your proposed operation (e.g., change the pesticide), which will require revisiting all consents and your operational plan.
- Cancel the operation, which is an extreme response and requires consultation with your manager.

If you can accommodate the conditions, amend your operational plan and communication plan accordingly. This may include changes to the budget and timing and may require approval from your manager.

If you receive formal notification from the Ministry of Health that public health permission is not required, ensure the qualifying points in the letter are correct and that your operational details match the information provided in the application form.

Step 4: Update the required compliance information in the DOCgis Pesticides Application. The assessor will send a copy of the DOC permission to the Regional Pesticides Summary Coordinator, who will add the link to the DOCgis Pesticides Application and update the status of the treatment block(s) to “will be laid.” Check that all operational details, including the start date, in the DOCgis Pesticides Application match the DOC permission and make corrections if necessary. The start date can be amended if the operation is delayed.

Step 5: This step is compulsory if control methods include aerially applied pesticides and optional otherwise. Create a compliance register for your operation using the Compliance register template docDM-1475273.

Copy and paste any conditions, agreements, risks, or threats from your communication plan (completed in Planning phase step 6) into your compliance register for those granting landowner/occupier consent, with whom agreements have been made, or for whom you have identified risks or threats. As other consents are received, copy and paste all conditions into your compliance register. At a minimum, complete columns A to F of the “Conditions” sheet. This may be used for a readiness check (in Pre-operational phase step 7) or audit (in Operational phase step 5) of your operation.

Deliverables: Consents obtained for the operation. A compliance register created for aerial operations.

Standards

1. All required consents are obtained before the operation proceeds.
2. Consent approvers are consulted when there are changes to the operation after consent/permission has been granted.
3. A compliance register must be created for all aerial pesticide operations following the instructions in the Compliance register template docDM-1475273 and must include all conditions and agreements that apply to the operation.
4. The operational plan is consistent with all consent conditions and agreements made.

Resources

- Compliance register template [docDM-1475273](#)
- Compliance register example aerial operation [docDM-1572651](#)
- Compliance register example bait station operation [DOC-6017602](#)
- Your applications for consents
- Your consents when these are obtained
- Your operational plan
- Your communication plan
- Your treatment block(s) in the DOCgis Pesticides Application
- Ministry of Health application form and guidance on public health permissions for VTAs <https://www.health.govt.nz/publications/guidelines-for-issuing-permissions-for-the-use-of-vertebrate-toxic-agents>
- Environmental Protection Authority Application for Permission website <https://www.epa.govt.nz/industry-areas/hazardous-substances/making-an-application/permissions/>

3.3.3. Pre-operational phase step 3: Notify target audience of planned operation

This step applies to all operations. You can expect it to take 1 – 4 weeks to complete.

The objective of this step is to inform the local community, stakeholders, visitors, and users about DOC pest operations.

Process

Step 1: Open the Pre-operational notification page of your communication plan. Carefully review all the standards below, as the legal requirements for target audiences, timeframes, and notification methods differ between control methods. Most standards relate to vertebrate pesticides as these are prescribed by law. Ensure any other target audience identified for notification in consent conditions or from consultation agreements is included.

Step 2: Create notification tools according to the Toolkit page of the communication plan.

Step 3: Notify target audiences of the planned operation. If anyone requests a repeat of the pre-operational notification, agree on a timeframe and ensure this is recorded and actioned.

Step 4: Record outcomes in your communication plan.

Deliverable: Communication record completed for pre-operational notification.

Standards

The following standards are for compulsory target audiences for pesticide operations.

1. For operations involving vertebrate pesticides, land occupiers and (as far as practicable) owners adjacent to the treatment area and if applicable loading site(s) are included in the pre-operational notification.
2. The Medical Officer of Health (MOH) is included in pre-operational notification for operations involving pesticides that do not require public health permission.
3. For aerial 1080 operations the officer in charge of the local police station is included in pre-operational notification.
4. For operations using Double Tap™ (D+C Pellet Bait) land occupiers and (as far as practicable) owners 'within the vicinity' of the treatment area are included in the pre-operational notification.
5. For operations targeting feral cats using para-aminopropiophenone (PredaStop for Feral Cats™), land occupiers and (as far as practicable) owners within 3km of the proposed treatment area are included in the pre-operational notification.
6. For operations using Magfume™, the nearest communications centre of Fire and Emergency New Zealand and anyone else who may be affected by the fumigation, is included in the pre-operational notification.
7. For operations using encapsulated sodium nitrite the following audiences are included in pre-operational notification:
 - a. any veterinarians operating in the area, and
 - b. the officer in charge of the local police station.

The following standard is for producing a fact sheet and applies to all methods.

8. A Notification fact sheet covering the following information about the operation is given to all target audiences, or the information is communicated to them in other ways:
 - a. Location and size of the treatment area

- b. Why control is needed at that site (covering values, pest problem, and intended conservation outcome)
- c. The details of the control method (if using pesticides include toxic loading, bait type, and application method)
- d. Why this control method was chosen
- e. Intended dates of application/operation
- f. Key facts about the method, including risks and mitigation
- g. Details of the permissions required and the consultation/notification process
- h. What to do if poisoning is suspected (if using pesticides)
- i. The job title and organisation of the person responsible for the operation, and the address and phone number of their office
- j. A map of the treatment area that clearly shows the boundaries. Include districts, roads and other commonly known features that may identify the place

The following standards are for timing of notification and apply to all methods.

9. Any mailout or email is completed a minimum of 2 weeks before the intended date of operation and prior to any public notice. Email may only be used where the tracking option for the email is set to 'request a read receipt for this message'.

When notifying clubs or other organisations, a longer period before the operation will be needed to allow for the information to be passed on to members.

10. For any operation involving 1080 or PredaStop™ for Feral Cats (para-aminopropiophenone), the pre-operational notification is 'given with sufficient prior notification but no more than 2 months before' the pesticide is laid.
11. For any operation involving Double Tap™ (D+C Pellet Bait), the pre-operational notification is 'given with sufficient prior notification, no less than 24 hours, but no more than 2 months before' the pesticide is laid.
12. For any operation involving encapsulated sodium nitrite, the pre-operational notification is 'given with sufficient prior notification but no more than 1 month before' the pesticide is laid.

The following standards are for public notice for aerial pesticide operations.

13. Public notice is used for all aerial applications of 1080 or pindone. The public notice appears in a newspaper available in the areas in which the substances will be applied.
14. The public notice includes the following:
 - a. The name of the pesticide, bait type and method of applying the bait.
 - b. The date of intended pesticide application.

- c. A basic map showing treatment boundaries and any commonly known features (e.g. districts, roads) that may identify the place. If a map would not have sufficient features to identify the location of the control area, a written description of the treatment area may be used. The written description includes the boundaries of the treatment area, districts, roads, and other commonly known features that may identify the place.
 - d. The location or locations where the public may view maps of the treatment areas and the times when such maps may be viewed.
 - e. The job title and organisation of the person responsible for the application, and the address and phone number of their office.
 - f. The most relevant information from the Notification fact sheet for your operation.
15. Any public notice is published in a period that complies with all consent conditions for the operation. If consents do not specify a timeframe, the notice is 'given with sufficient prior notification but no more than 2 months before' the pesticide is laid. This is generally taken to mean at least 2 weeks ahead of the intended application date. If the operation is then delayed, re-notification and re-publication can be done as close as a few days prior to the aerial application.

The following standards apply if using the RMA Exemption regulations as determined in Planning phase step 3.

16. If using the Resource Management (Exemption) Regulations 2017, the relevant regional council is given written notification of the operation.
17. The notification includes the following information:
- a. the objectives of the operation
 - b. the vertebrate pesticide, pre-feed, or repellent to be used
 - c. the bait, delivery method, application rate, or lures to be used
 - d. a map showing the boundaries of each treatment block(s)
 - e. the location of any warning signs for each treatment block
 - f. the period during which the operation will occur in each treatment block
 - g. the name and contact details of the person in control of the field work (usually the operational planner)
18. The notification is given as early as practicable, but no later than 48 hours, before the operation (including pre-feeding) starts, and repeated if there are changes to the information provided therein.

The following standards are for communication records and applies to all methods.

19. A record is kept of all notification in the communication plan, including those for any parties with whom direct contact could not be made.

20. A record of the dates and publications where public notices appeared is kept in the communication plan.
21. The outcomes of notification are recorded in the communication plan.

Resources

- Your communication plan
- Notification fact sheet template [docDM-22877](#)
- Notification fact sheet example [docDM-22879](#)
- Notification fact sheet NPCP template [DOC-6174666](#)
- Notification fact sheet NPCP example [DOC-7078346](#)
- NPCP resources for engagement and communication [DOC-5998295](#)
- NPCP Guide to engaging with our Treaty Partner and communities at place [DOC-6290966](#)
- WAMP resources for engagement and communication [DOC-7624668](#)
- Generating a concessionaires list [DOC-6278584](#)
- Visit plan and record example [docDM-22881](#)
- Consent conditions relating to notification

3.3.4. Pre-operational phase step 4: Write task specifications and collate attachments

This step applies to all operations. You can expect it to take 2 days to complete.

The objective of this step is to write task specifications that detail how the task is to be done and the standards that apply. This ensures tasks can be delegated effectively, as everyone is clear on what is expected.

Process

Step 1: Review the task list in your operational plan and identify those that need task specifications.

Step 2: Modify relevant example task specifications to suit your operation or create your own using the Task specifications template docDM-313054. Identify the people and equipment needed.

Step 3: Gather all required attachments.

Deliverable: Task specifications for tasks that need them.

Checkpoints

You will have completed this step when:

- Your task specifications include all applicable standards and consent conditions.

- Your task specifications have been added to the operational plan and are ready for briefing field staff in the Operational phase.
- The standards in the Management of Hazardous Substances SOP have been applied whenever pesticides are moved or stored.

Resources

- Task specification template [docDM-313054](#)
- [Example task specifications](#) from [Current agreed best practice for animal pest control](#)
- Task specifications from other similar operations
- Your operational plan
- Management of Hazardous Substances SOP [DOC-6052105](#)
- [Animal pest welfare in firearm and live capture operations](#)

3.3.5. Pre-operational phase step 5: Organise contracts

This step applies to all operations if any tasks will be contracted out. You can expect it to take 6 – 10 weeks to complete.

The objective of this step is to secure any contracts required for your operation in line with the Procurement and Supplier Management SOP.

Process

Step 1: Identify any tasks in the operational plan that will be contracted out from Planning phase step 4.

Step 2: Create a Description of Services for the contract by:

- Modifying your task specification or an example task specification from Current Agreed Best Practice; or
- Using an example from the Procurement and Supplier Management SOP

Review the consent conditions that apply to your operation by checking the lists of conditions you copied into the compliance register in Pre-operational phase step 2. Ensure the contract aligns with all consent conditions and SOP standards.

Step 3: Follow the Procurement and Supplier Management SOP to plan and carry out the sourcing process (most likely tendering) and secure the contract.

Deliverable: Signed contract(s) needed for your operation.

Checkpoints

You will have completed this step when:

- All contracts are in place for your operation and any associated monitoring.

Resources

- Procurement and Supplier Management SOP [docDM-912450](#)
- Procurement SOP quick reference guide [docDM-1011955](#)
- Procurement online DOCLearn training modules
- [Procurement and purchasing pre-drafted contracts intranet page](#)
- [Example task specifications](#) from [Current agreed best practice for animal pest control](#)
- Your operational plan
- [Working with contractors intranet page](#)

3.3.6. Pre-operational phase step 6: Prepare operational signage

This step applies to all operations. You can expect it to take 2 weeks to complete.

The objectives of this step are:

- To ensure signs meet all standards. The number, size, and location of signs must comply with all consent conditions.
- To accurately record details of signs in the DOCgis Pesticides Application if using pesticides.

Process

Step 1: Decide what signage is required for your operation. For example, you may need to warn visitors about a hazard and the precautions they need to take or convey other information such as closure notices for public walkways or other land. If using pesticides, follow the process and standards in this SOP for creating, installing, maintaining, and removing warning signs, as they meet the legal requirements. For other control methods or information signs, refer to the "How to order DOC signs" intranet page for information on producing these.

Step 2: If using pesticides, design signs using the warning sign template(s) corresponding to your pesticide use(s) on the Status List docDM-22655. Obtain the necessary information to complete the required fields. If the phone number on the sign is for a DOC office or Customer Service Centre, ensure the people receiving the call have enough information to direct the call to the person in control of the fieldwork. You will also need loading site signs if planning an aerial operation. The template and standard for these are on the Performance Standard sheets for the relevant pesticide uses.

Step 3: If using pesticides, add the proposed sign locations and details to your treatment block(s) in the DOCgis Pesticides Application (if not already done). Use the warning signs shown on your permissions map to identify locations and types of signs.

Step 4: Procure signs. Tally the number and size of signs you need, based on your sign register. Consider including extra signs for replacements. Decide on the type of sign production you want (e.g., corflute, vinyl, PVC digital print, UV ink print, laminated). Externally produced signs must be ordered through the Department's contracted supplier, Blue Star. See the "How to order DOC signs" intranet page for the link to the online ordering system. You can also use the system to create an online proof of a sign to print and laminate yourself.

Deliverable: Signs, and if using pesticides, accurate sign information on the DOCgis Pesticides Application.

Standards

The following standards must be followed for pesticide warning signs.

1. Warning signs of any design other than the one linked from the Status List must not be used.
2. Only the fields listed below may be changed. No other content or formatting may be altered.
 - a. Contact details of the person in control of the field work (usually the operational planner), their job title as specifically as possible (e.g. Ranger Biodiversity), the phone number where they can be contacted during normal business hours, and the name of their organisation and office/division. The minimum size for this information is 28pt font.
 - b. Date of bait application (if known) or leave blank to write in when the signs are installed. The minimum size for this information is 28pt font.
 - c. Bait description or clear photo of bait, to show someone what they might encounter
 - d. Another organisation's logo may be added if relevant
3. Signs located at normal points of entry (as shown on permissions map) are to be at least A3 in size. Warning signs in other places can be A4 in size.
4. The sign locations and details in the DOCgis Pesticides Application are complete and kept current with dates that signs are installed, checked and removed.

Resources

- [How to order DOC signs](#)
- Status List [docDM-22655](#)
- Your consents and the approved DOC permission map
- Performance standards sheets for relevant pesticide uses
- Your treatment block(s) in the DOCgis Pesticides Application
- Graphic below showing an example sign with notes on which fields may be edited



DANGER POISON

Photo or description of bait



In an emergency, dial 111

SODIUM FLUOROACETATE

TOXIC to PEOPLE and

will be present on the ground from: 1 December 2020

- **DO NOT TOUCH** poison bait
- **WATCH CHILDREN** at all times
- **DO NOT EAT** animals from this area

Poison bait or carcasses are DANGEROUS

Date of bait application (minimum size of 28pt font)



Department of Conservation
Te Papa Atawhai
New Zealand Government

For more information, contact:

Ranger, Biodiversity
Tel: (07) 867 9180

Hauraki Office
Department of Conservation

Unauthorised removal of signs or poison baits is an offence

Contact details of the person in control of the field work (minimum size of 28pt font)
Note: a person's name is **NOT** required.

Another logo can be added

3.3.7. Pre-operational phase step 7: Check that you are ready for the operational phase

This step applies to all operations. You can expect it to take 2 – 10 days to complete.

The objective of this step is to ensure everything is ready for the operational phase to begin.

Process

Step 1: Review the tasks in the operational plan to identify any that have not been completed to standard.

Step 2: Work with the person assigned to each task to ensure it is completed.

Step 3: If using pesticides, check your DOC permission to see if a readiness check is required. If not using pesticides (or if a readiness check is not required by the DOC permission), consider arranging a readiness check of your preparedness. Ask a colleague meeting the requirements in Section 1.3 to carry out the readiness check. Provide the readiness checker with a compliance register for your operation. You will have prepared this in Pre-operational phase step 2 for aerial operations. For other operations, follow process step 5 of Pre-operational phase step 2 to create one now.

The readiness checker reviews all your planning documentation and records their compliance observations in your compliance register against:

- All standards from the Preparing, Planning, and Pre-Operational phases
- Any standards from consents, agreements, or contracts that can be evaluated at this stage
- Any risks/threats that should have been addressed by this stage
- The task list of your operational plan

Step 4: Update the operational plan and associated documents. If you are using pesticides and your operation is delayed, update the start date for your treatment block(s) in the DOCgis Pesticides Application.

Deliverables: All Pre-operational tasks in the operational plan completed. Updated compliance register, where a readiness check was completed.

Checkpoints

You will have completed this step when:

- All Pre-operational tasks in the operational plan have been completed to standard. You are ready for the Operational phase.

Resources

- Your operational plan
- Your prepared compliance register (use the compliance register template [docDM-1475273](#))
- Compliance register example aerial operation [docDM-1572651](#)
- Compliance register example bait station operation [DOC-6017602](#)
- Eradication readiness check report template [DOC-7878544](#)
- Your treatment block(s) in the DOCgis Pesticides Application

3.4. Operational phase

The Operational phase involves carrying out the fieldwork.

The Operational phase has the following steps:

- Step 1: Brief operators before field work
- Step 2: Undertake pre-control monitoring
- Step 3: Communicate the twenty-four hour notice
- Step 4: Install operational signage and update relevant Applications
- Step 5: Undertake pest control and update relevant Applications

Follow each step but note that some steps can be done at the same time. By the end of this phase, you will have completed the pest control.

3.4.1. Operational phase step 1: Brief operators before field work

This step applies to all operations. You can expect it to take less than 1 hour to complete.

The objectives of this step are:

- To ensure that field staff, volunteers, and contractors understand their responsibilities.

- If using pesticides, to provide the approved DOC permission map to the field supervisor (for ground operations) or the aerial contractor and brief them on the location of sensitive boundaries and exclusion zones.

Process

Step 1: Gather the planning documents relevant to field staff. Brief field staff, volunteers, and contractors on their roles in the operation.

Step 2: If using pesticides, brief the field supervisor (for ground operations) or the aerial contractor on operational boundaries to meet the standards. For aerial pesticide applications, fly the boundaries as required by the standards. For sensitive boundaries that are hard to see from the air, mark key points on the ground beforehand with coloured tape, flags, or other markers to ensure they are visible from the aircraft.

Step 3: Plan and carry out job safety analysis and toolbox talks according to the Health and Safety Management Systems Manual.

Step 4: Keep a record of all briefings, including the date and any relevant information or issues.

Deliverable: Record of who has been briefed on what.

Standards

The following standards must be followed for operations using pesticides.

1. Prior to ground based pesticide application, the field supervisor:
 - a. Receives a copy of the map
 - b. Is briefed regarding the location of sensitive boundaries and exclusion zones by the operational planner (or a person nominated by them)
2. A navigational guidance system is used for all aerial operations.
3. Prior to aerial pesticide application the aerial contractor:
 - a. Receives a digital copy of the aerial application boundary and exclusion zones, and uploads these to the onboard GPS system prior to applying pesticide
 - b. Flies the boundaries of the aerial application area and exclusion zones with the operational planner (or a person nominated by them) to confirm that the electronic boundary is correct and familiarise themselves with the boundary (the approving manager can exempt certain boundaries from this requirement)
 - c. Is briefed regarding the location of sensitive boundaries and exclusion zones, and outlines their sowing plan to ensure that these boundaries will not be breached, to the satisfaction of the operational planner
 - d. Receives copies of all relevant consents and approvals, and a hard copy of the map

Exceptions

The approving manager can allow exemptions to the requirement to fly certain boundaries provided they meet all the following criteria:

- They are not considered to be sensitive boundaries for any reason
- They adjoin treatment areas for which all required permissions are held
- They are readily distinguishable from the air (e.g. bushline)

The approving manager can allow exemptions to fly all the boundaries for a rotenone operation where it is not practical due to the size and obvious boundaries of the application area.

Resources

- Your operational plan, including task specifications
- Your DOC permission map
- Management of Hazardous Substances SOP [DOC-6052105](#)
- [Animal pest welfare in firearm and live capture operations](#)
- [Health and Safety Management Systems intranet page](#):
- Hazard and risk management [docDM-235267](#)
- Information, training and supervision [docDM-231274](#)
- PCBU and contractor management [docDM-836257](#)
- Definitions
 1. Aerial application area: The area over which bait is to be aerially applied. This is the shape file given to the pilot to be flown. May have exclusion zones or no fly zones within its perimeter. It doesn't include the areas of the buffers.
 2. Aerial application boundary: The boundary of the area where bait is to be aerially applied. May be buffered in from the treatment area boundary.
 3. Approving manager: The DOC manager who approved the application for DOC permission

3.4.2. Operational phase step 2: Undertake pre-control monitoring

This step applies when monitoring is planned. You can expect it to take 2 days to several weeks to complete.

The objective of this step is to establish baseline data for result and/or outcome monitoring, as planned in Step 2 of the Planning phase.

Process

Step 1: Implement your result monitoring and outcome monitoring plans.

Step 2: Record the data according to the planned data quality standards.

Deliverable: Pre-control monitoring data.

Checkpoints

You will have completed this step when:

- Your pre-control monitoring data has been recorded according to the relevant monitoring plan.

Resources

- Your operational plan
- Your result monitoring plan
- Your outcome monitoring plan

3.4.3. Operational phase step 3: Communicate the twenty-four hour notice

This step applies when it is part of your communication plan. You can expect it to take 1 – 2 hours to complete.

The objective of this step is to inform the people identified in the communication plan that the operation is about to begin.

Process

Step 1: Open the 24-hour notice page in your communication plan.

Step 2: Contact the target audience identified and notify them that the operation is about to occur, using the notification tools specified in your communication plan.

Step 3: Record the actual dates and outcomes in the communication plan.

Deliverable: 24-hour notice communication record.

Standards

1. Compulsory target audiences for twenty-four hour notice:
 - a. For operations involving vertebrate pesticides, land occupiers and (as far as practicable) owners adjacent to the treatment area and if applicable aerial loading site(s) are included in the twenty-four hour notice
 - b. For operations involving vertebrate pesticides, all consent providers are included in the twenty-four hour notice, and close liaison is maintained throughout the operation
 - c. Anyone identified for twenty-four hour notification in consent conditions is included in the twenty-four hour notice
 - d. Anyone who was promised a twenty-four hour notice during consultation is included in the twenty-four hour notice
2. The twenty-four hour notice is completed in the period specified in any relevant consent conditions (usually 24–48 hours prior to bait application).

3. The twenty-four hour notice is done by visit, phone call, text message or email. Text message or email are only used if:
- The recipient has stated that this is their preferred method of contact
 - The content standard is still met
 - Contact details are provided for any questions/issues
 - The recipient replies to the message to acknowledge it has been received
4. Compulsory content for twenty-four hour notice:
- The planned start date of the operation
 - Timing of any closures of tracks or loading sites
 - If using pesticides, a reminder (from the Notification fact sheet) that the presence of warning signs indicates pesticide residues may still be present in baits or animals
 - If using pesticides, the risk message not to take animals for eating applies to the buffer zone of the operations, as well as the treatment area itself
5. The dates and outcomes of notification are recorded in the communication plan.

Resources

- Your communication plan

3.4.4. Operational phase step 4: Install operational signage and update relevant Applications

This step applies to all operations. You can expect it to take 1 day to complete.

The objectives of this step are:

- To install signs at the correct locations to communicate risk messages and other information.
- Accurate information about pesticide operations is shown on the Pesticides Summary.

Process

Step 1: If using pesticides, write the date of bait application on all warning signs once the start date of the operation is finalised.

Step 2: Install signs at all the required locations. For pesticides, these are the locations shown on the DOCgis Pesticides Application and DOC permission map.

Step 3: If using pesticides, check that the details for your treatment block(s) in the DOCgis Pesticides Application are still accurate and update if necessary. Set the status of the virtual signs to "actual" and change the status of the treatment block(s) to "have been laid".

Deliverables: Correct signs installed at required locations. Treatment block(s) for pesticide operations are shown on the Pesticide Summary as bait having been laid.

Standards

The following standards must be followed for pesticide warning signs.

1. Signs located at normal points of entry (as shown on Permissions map) are to be at least A3 in size. Warning signs in other places can be A4 size.
2. Install signs as close as possible before the start of bait application (i.e. on the day before where possible).
3. Sign installation is accurately recorded in the DOCgis Pesticides Application.
4. The information in the DOCgis Pesticides Application accurately reflects the operation and the status of the treatment block(s) is set to "have been laid" as close as possible before the start of bait application (i.e. on the day before where possible).

Resources

- Your set of signs for the operation
- Your treatment block(s) in the DOCgis Pesticides Application

3.4.5. Operational phase step 5: Undertake pest control and update relevant Applications

This step applies to all operations. You can expect it to take 1 day to months to complete.

The objectives of this step are to:

- To meet result targets in your operational plan by following the plan and associated task specifications.
- If using pesticides, to have a complete record of all bait application within the DOCgis Pesticide Application.
- Accurate information about pesticides operations is shown on the Pesticides Summary.

Process

Step 1: The project team completes tasks as delegated in the operational plan, meeting task specifications.

Step 2: Address any immediate incident investigation and reporting requirements. For pesticides, this includes reporting bait spills or misapplications (i.e., bait laid outside intended treatment area for which consent is held) as specified on the relevant safe handling sheet. Also check permission conditions for incident reporting requirements.

It may be prudent to report other significant incidents (e.g., non-target deaths) before the Reporting phase. Seek advice from your manager or a Technical Advisor Threats if unsure.

Step 3: If using pesticides, the approving manager for your DOC permission may choose to monitor compliance of your operation. If not using pesticides (or if the approving manager does not opt to audit), consider asking a colleague to carry out an audit. This can be done by an independent person who knows this SOP. Provide the auditor with a compliance register for your operation. You will have prepared this in Pre-operational phase Step 2 for aerial pesticide operations. For other operations, follow process Step 5 of Pre-operational phase Step 2 to create one now.

Step 4: For pesticide operations, add the details of actual bait application (including pre-feeding) and bait removal/destruction to your treatment block(s) in the DOCgis Pesticides Application within 2 weeks of the fieldwork occurring. For aerial operations, the GIS team will add the treatment data, but it is still the operational planner's responsibility to ensure this happens. Actual bait application must be recorded for the block boundaries to be copied to Operational Activity Actuals. If more than 5% of a block does not receive treatment (e.g., due to poor weather), amend the block boundaries in the DOCgis Pesticides Application accordingly. For aerial applications, maintain the buffers as part of the treatment area.

Ensure the end date of the treatment block(s) in the DOCgis Pesticides Application is correct. For pesticide uses where the bait is left to degrade, it will be the last date of bait application. For pesticide uses where bait must be removed or destroyed at the end of the operation, it will be the date this occurred. This must be done manually as recording bait removal/destruction does not automatically update the end date for a treatment block.

Step 5: Record field notes on the operation in preparation for operational reporting, especially any specific issues encountered and practices that differed from what was planned. These could include:

- Timing
- Equipment
- Weather problems
- Contractor performance
- Feedback from people involved in the operation
- Incidents and complaints

Deliverable: Pest control completed as specified in the operational plan. Relevant pages completed in your compliance register. If using pesticides, details of actual bait application for each treatment block are available in the DOCgis Pesticides Application.

Standards

1. If using pesticides, details of actual bait application and removal/destruction are entered for each treatment block in the DOCgis pesticides Application.
2. If using pesticides, the end date for each treatment block in the DOCgis Pesticides Application correctly reflects the actual end date of the operation.
3. All operational information needed for the operational report is recorded.

Resources

- Your operational plan, including task specifications
- Metservice learning centre <https://about.metservice.com/our-company/learning-centre/how-to-read-weather-maps>
- NPCP weather forecasting for operational purposes [DOC-2929845](#)
- Management of Hazardous Substances SOP [DOC-6052105](#) and relevant safe handling sheet
- [Health and Safety Management Systems intranet page](#): Incident reporting, recording and investigation [docDM-25389](#)
- Your prepared compliance register (compliance register template [docDM-1475273](#))
- Compliance register example aerial operation [docDM-1572651](#)
- Compliance register example bait station operation [DOC-6017602](#)
- Catch Per Unit Effort (CPUE) best practice guidance [DOC-10484338](#)
- Your treatment block(s) in the DOCgis Pesticides Application
- DOCgis Pesticides Application user guide https://intmap.doc.govt.nz/AppResources/UserGuides/Pesticides/index_Pesticides.html

3.5. Post-operational phase

The post-operational phase starts once the pest control is completed and answers the question, "What happened?"

The Post-operational phase has the following steps:

- Post-operational phase step 1: Send the post-operational update
- Post-operational phase step 2: Monitor baits and/or carcasses
- Post-operational phase step 3: Maintain and remove operational signage
- Post-operational phase step 4: Undertake post-control monitoring
- Post-operational phase step 5: Debrief operation

Work through each step but note that some steps can be done in parallel. By the end of this phase, you will have everything you need to write the operational report.

3.5.1. Post-operational phase step 1: Send the post-operational update

This step applies to all operations. You can expect it to take 1 day to complete.

The objective of this step is to inform people that the operational phase has finished and remind them of key risk messages.

Process

Step 1: Open the post-operational update page in your communication plan.

Step 2: Notify your target audiences that the operation has occurred, using the post-operational notification tools identified in your communication plan.

Step 3: Record the actual dates and outcomes in the communication plan.

Step 4: Complete any remaining details in your communication plan and then convert your plan into a communication record (refer to Standard 5).

Deliverables: Post-operational update completed, and communication plan updated and converted into a communication record.

Standards

1. Compulsory target audiences for post-operational notification:
 - a. Any target audience identified for notification in consent conditions
 - b. The communications centre of Fire and Emergency New Zealand, and any affected persons that were given pre-operational notification, are included in the post-operational update for operations using Magfume™
2. Mailouts or emails are used for all target audiences identified for post-operational update in the communication plan.
3. Compulsory content for post-operational notification:
 - a. The details of the control method (if using pesticides include toxic loading, bait type, and application method)
 - b. The date when operation/pesticide application finished
 - c. Any results to date
 - d. Restatement of what to do to avoid or mitigate risks of the operation (from the Notification fact sheet)
 - e. If using pesticides, the estimated caution period
 - f. If using pesticides, a reminder (from the Notification fact sheet) that the presence of warning signs indicates that pesticide residues may still be present in baits or animals
4. For any pesticide operation applying the Resource Management (Exemption) Regulations 2017: No later than 20 working days after the last date of application the relevant regional council is given written notification with the following information:
 - a. A map showing the boundaries of where each application occurred (i.e. the map of the treatment area from the DOCgis Pesticides Application which may have been updated in Operational phase Step 5)
 - b. The period during which each application occurred

5. A communication record of the consultation and notification that took place is produced, including:
- Actual dates when consultation and notification was undertaken
 - Outcomes of consultation and notification, including any complaints and how they were addressed
 - References to resources used (e.g. document management system reference number)

Resources

- Your communication plan
- Post-operational update example [docDM-22889](#)
- Post-operational update NPCP template [DOC-7624959](#)
- Post-operational update NPCP example [DOC-7675086](#)
- NPCP Guide to engaging with our Treaty Partner and communities at place [DOC-6290966](#)
- NPCP resources for engagement and communication [DOC-5998295](#)
- WAMP resources for engagement and communication [DOC-7624668](#)
- Communication record example [docDM-22871](#)

3.5.2. Post-operational phase step 2: Monitor baits and/or carcasses

This step applies when using pesticides, if specified on the Performance standards sheets. You can expect it to take months to complete.

The objectives of this step are:

- To determine when the risk of public exposure to pesticides has passed
- To maintain accurate caution period information in the Pesticide Summary
- Monitoring endpoints are met before concluding the caution period.

Process

Step 1: Identify the number of sites to be sampled. Use the Land Environments New Zealand (LENZ) level 1 data accessible through the DOCgis (Geographical Information System). Monitor bait and carcass decay rates at one site for each level 1 land environment present.

Alternatively, monitor bait and carcass decay rates at one site for every 750 m of vertical height within your treatment area, and at least one site where average annual rainfall varies by more than 1500 mm.

If a monitoring site is remote or difficult to access, use a similar site at the same altitude outside the treatment area as a surrogate. Use non-toxic baits if you do not have the necessary permissions to lay pesticides for the surrogate area.

Step 2: The start point for bait and carcass monitoring is the same as the start point for the caution period (i.e., either the last date of bait application or when baits are removed or destroyed). Place baits and carcasses at each site at this time. Photograph baits and carcasses from a fixed position to create a record of the start point for monitoring.

Step 3: Check baits and/or carcasses once the minimum caution period has elapsed to determine if the estimated caution period can be shortened. If all endpoints have been reached, the estimated caution period can be shortened and concluded. If not, continue monitoring until the end of the estimated caution period to determine which of the following applies:

- If all endpoints have been reached, conclude the caution period.
- If all endpoints have not been reached, extend the estimated caution period. Decide on a new estimated caution period and advise the approving manager for your DOC permission in writing. Update the estimated caution period for your treatment block(s) in the DOCgis Pesticides Application. Continue monitoring and re-extend the caution period until all endpoints have been reached. This is when the caution period is concluded.

Photograph carcasses every time they are checked from a fixed position to create a record of decay over time. Baits are only photographed at the start point and endpoint.

Toxicological analysis can be used to confirm expiry of the caution period if you suspect that the remaining bait or carcass is non-toxic.

Step 4: When the caution period has concluded, provide the approving manager for your DOC permission with a bait and carcass monitoring report that meets the standards.

Deliverables: Conclusion of the estimated caution period and bait and carcass monitoring report saved to the document management system. Accurate caution period information for your treatment block(s) on the Pesticide Summary.

Standards

1. The number of monitoring sites is reasonable when evaluated against the LENZ level 1 data (i.e. one site for each environment present) or the range of climates represented at the site.
2. At each bait monitoring site, the number and placement of baits meets the following standards:
 - a. Hand laid baits: Three to six baits are monitored at each site. These are enclosed in wire mesh with holes no more than 8 mm x 8 mm, to prevent them being eaten by rodents. Place them on the ground to allow soil decomposers to access them. Place them under vegetation that is most typical of the denser cover in the treatment area. Place them on colder aspects (e.g. southern), to measure the slowest rate of decay.
 - b. Bait in bait bags: If bait bags containing toxic bait are to be left in the field, three to six bait bags are to be monitored at each site. These are enclosed in wire mesh with holes no more than 8 mm x 8 mm and placed in a similar manner to the bait bag placement used in the operation.

- Released under the Official Information Act
3. At each carcass monitoring site, the number and placement of carcasses meets the following standards:
 - a. Use possum carcasses except where impractical (e.g. rat control in a possum-free area) or where larger animals are easier to source and monitor (e.g. goats or deer). At least two possum carcasses need to be monitored at each site.
 - b. Carcasses can be sourced from anywhere but need to be reasonably fresh carcasses with no major open wounds. They do not have to be protected from rodents, but secured to prevent pigs, dogs, or cats from taking them (e.g. inside a possum cage trap pinned to the ground).
 - c. Place the carcass on the ground to allow soil decomposers to access them. Place them under vegetation that is most typical of the denser cover in the treatment area. Place them on colder aspects (e.g. southern), to measure the slowest rate of decay.
 4. The caution period is concluded when the minimum caution period has elapsed, and the following monitoring endpoints have been reached:
 - a. Baits have completely disappeared, or only a few separated particles of grain or wax flakes remain
 - b. For carcasses, all soft tissue has disappeared and only bones, skin and fur remain
 5. The treatment block(s) in the DOCgis Pesticides Application are updated with the new estimated caution period if it is extended.
 6. The approving manager is notified when the caution period is shortened, extended or concluded. Notification includes supplying the bait and/or carcass monitoring report.
 7. Compulsory bait and carcass monitoring results are recorded in a report saved to the document management system. This report includes:
 - a. Operation name
 - b. Pesticide uses in the operation
 - c. Caution period start date
 - d. Date endpoint(s) reached for each monitoring site
 - e. Photos for the first and final monitoring visit to each monitoring site
 - f. A statement of whether the treatment area was 'dry' (i.e. <600mm rainfall/year or low rainfall during the monitoring period)
 - g. A statement of whether mean temperature in the 6 months following the operation was <10 degrees

Resources

- Your approved Performance standards sheets for each pesticide use
- Task specifications for this task from your operational plan

- DOCgis <https://intmap.doc.govt.nz/internalmaps/index.html?viewer=docgis>
- NIWA Climate Database: <https://data.niwa.co.nz/>
- Definitions:
 1. The caution period is the timeframe (usually number of months) after the last date of bait application or bait removal when DOC expects that the risk of pesticide residues to the public will have passed.
 2. The minimum caution period is the shortest legally compliant caution period that can apply to a particular pesticide use.
 3. The estimated caution period is the caution period established in the DOC permission for an operation and communicated in the DOC Pesticide Summary. The estimated caution period can be subject to bait and/or carcass monitoring, which can result in the period being extended or shortened.
- Craddock, P. 2003: Environmental breakdown of Pest-Off® poison bait (20ppm brodifacoum) at Tāwharanui Regional Park, North of Auckland. Report prepared for Northern Regional Parks, Auckland Regional Council (unpublished), Entomologica Consulting. Auckland, New Zealand. 25pp [docDM-311798](#)
- Bait and carcass photographic record example [docDM-1481478](#)
- Your treatment block(s) in the DOCgis Pesticides Application

3.5.3. Post-operational phase step 3: Maintain and remove operational signage

This step applies to all operations. You can expect it to take months to complete.

The objectives of this step are:

- To ensure that signs are always visible and legible throughout the operation.
- If using pesticides, to remove warning signs when the caution period has expired and to remove the operation from the Pesticide Summary.

Process

Step 1: Check signs, either by scheduling it alongside other work or by planning specific checks. Repair or replace signs as needed after vandalism or storm damage.

Step 2: Remove signs when the risks have passed or when the information they convey is no longer required. For pesticide warning signs, this is after the caution period has concluded (as specified on the performance standards sheets for your operation and may depend on bait and/or carcass monitoring).

Step 3: If using pesticides, retire the treatment block(s) in the DOCgis Pesticides Application to remove the operation from the Pesticides Summary. Retiring the treatment block will change the status of all virtual warning signs associated with that block to "removed". Ensure you have added all required information and links to other documents before retiring the treatment area/blocks, as this cannot be done afterwards.

Step 4: If using pesticides, notify the approving manager for your DOC permission in writing that signs have been removed.

Deliverable: If using pesticides, all warning signs are removed when the caution period has expired, and the treatment block(s) are removed from the Pesticide Summary. For other methods, signs are removed when no longer required.

Standards

The following table contains the standards that must be followed for this step for pesticide warning signs.

1. Warning signs are always visible and legible throughout the operation.
2. Warning signs are to be checked frequently enough to comply with all relevant consent conditions.
3. Signs are removed when the caution period is concluded. The approving manager is notified of this in writing.
4. When the caution period is concluded the status of the virtual signs in the DOCgis Pesticides Application is changed to “removed” and the treatment block(s) are retired.

Resources

- Your bait and/or carcass monitoring report
- Caution period definitions:
 1. The caution period is the timeframe (usually number of months) after the last date of bait application or bait removal when DOC expects that the risk of pesticide residues to the public will have passed.
 2. The minimum caution period is the shortest legally compliant caution period that can apply to a particular pesticide use.
 3. The estimated caution period is the caution period established in the DOC permission for an operation and communicated in the DOC Pesticide Summary. The estimated caution period can be subject to bait and/or carcass monitoring, which can result in the period being extended or shortened.
- Your treatment block(s) in the DOCgis Pesticides Application

3.5.4. Post-operational phase step 4: Undertake post-control monitoring

This step applies when monitoring is planned. You can expect it to take 2 days to several weeks to complete.

The objective of this step is to re-measure the same parameters you established in Step 2 of the Operational phase. Follow the monitoring plans agreed upon in Step 2 of the Planning phase.

Process

Step 1: Implement your result monitoring and outcome monitoring plans.

Step 2: Record the data according to the planned data quality standards.

Step 3: Analyse the data.

Deliverable: Post-control monitoring data analysed.

Checkpoints

You will have completed this step when:

- Your post-control monitoring data has been recorded and analysed according to the relevant monitoring plan.

Resources

- Your operational plan
- Your result monitoring plan
- Your outcome monitoring plan

3.5.5. Post-operational phase step 5: Debrief operation

This step applies to all operations. You can expect it to take 2 – 3 hours to complete.

The objective of this step is to identify lessons learned from the operation to improve planning for the next operation. Include these lessons in the operational report.

Process

Step 1: Review the operational plan and discuss with the project team how the operation went.

Step 2: Identify lessons learned from all phases of the operation.

Step 3: Discuss and agree on the lessons.

Step 4: Create a record of the agreed list.

Deliverable: Record of lessons from this operation.

Checkpoints:

You will have completed this step when:

- You have a record of lessons that can be used when writing the operational report and when planning the next operation.

Resources

- Your operational plan
- The project team—consider involving relevant science or technical advisors
- Consider using a facilitator for the debrief
- Tips on running a good debrief [docDM-366280](#)
- NPCP debrief template [DOC-5492238](#)

3.6. Reporting phase

In the Reporting phase, you answer the question, "What did you do?"

The Reporting phase has the following steps:

- Step 1: Write the Operational report and have it approved
- Step 2: Follow up on lessons and recommendations

By the end of this phase, you will know what you would do differently next time.

3.6.1. Reporting phase step 1: Write the Operational report and have it approved

This step applies to all operations (except fahr control). You can expect it to take 1 week to complete.

The objectives of this step are:

- To finalise the operational report to plan future operations at your site and nationally. This is your opportunity to communicate lessons from the project and contribute to best practice.
- To fulfil the legal requirement to have a record of use for certain vertebrate pesticides and meet the aerial 1080 reporting requirements.

Process

Step 1: Write the operational report using the Operational report template DOC-7129705 or for WAM hunting operations DOC-7723946. Gather the information collected from this operation (e.g., consultation record, consents, field notes, debrief minutes) and previous operational reports. Ensure all incidents are documented in the operational report. Consider peer review of the draft, especially if there are incidents, complaints, or deviations from the planned operation. Add details of the operational report to the Operational reporting master spreadsheet DOC-7194322.

For aerial pesticide operations, check that the GIS Analyst has combined the GPS data files showing the bait application flight lines, and the aircraft secondary positional information with the bait log details and loaded these to the NATIS1 GIS database. For aerial 1080 operations, ask the GIS Analyst to save the map for the EPA aerial 1080 report to the S drive.

For pesticide operations, add the operational report docCM number to your treatment area in the DOCgis Pesticides Application. This needs to be done before retiring all the treatment blocks attached to the treatment area.

Step 2: The Operations Manager reviews the report and any advice supplied before approving the operational report by changing the report status to 'final' and entering their name and the date in the 'Approved by' field.

Step 3: For aerial 1080 operations, send an email with the finalised operational report as an attachment and the docCM number of the communications plan to 1080reports@doc.govt.nz for the Improvement Advisor, National Operations s9(2)(g)(ii) to review and submit to the EPA.

This must occur within the timeframe stated in Standard 2 to allow the required report to be submitted to the EPA within the 6-month legal timeframe. Advise the Improvement Advisor, National Operations of any aerial 1080 operation carried out jointly with another agency to determine which agency will be submitting the report to the EPA.

Step 4: For aerial 1080 operations, the Improvement Advisor, National Operations reviews and amends the copy of the operational report if necessary and submits it to the EPA within 6 months of the first date baits were aerially applied. Follow the instructions in EPA Aerial 1080 report instructions docDM-382846.

Deliverable: Approved operational report.

Standards

1. An operational report is written for all DOC pest operations (except tahr control).
2. For aerial 1080 operations, the report is completed and approved by the Operations Manager within 5 months of the first date baits were aerially applied. The Improvement Advisor, National Operations is emailed (1080reports@doc.govt.nz) the finalised report as an attachment and the docCM number of the communications plan with the subject line 'Operational report for EPA website' within this timeframe.
3. For all other DOC pest operations, the report is completed and approved by the Operations Manager:
 - a. Within 2 months after result monitoring is completed;
 - b. Where there is no result monitoring, within 2 months after outcome monitoring is completed; or
 - c. Annually
4. All sections of the Operational report are completed, using 'N/A' for those not needed. The operational information for treatment blocks is clearly separated in each section of the report where differences exist between them.
5. The Operational report is written to:
 - a. Cover the information required by the instructions in the template
 - b. Be specific and factual
 - c. Align with definitions
 - d. Use concise plain English
 - e. Use references that are specific and traceable, and only where the template instructions allow for them
6. The Operational report includes at least one map, as a document management system link or a description of the file location (e.g. DOCgis Pesticides Application or S drive).
 - a. The map shows the following as a minimum:
 - b. Map number and series (e.g. T17 NZMS 260)

- c. The external boundary of the treatment area (shade along the inside of the boundary)
 - d. DOC land boundaries relevant to the operation
 - e. Name of treatment area
 - f. Land tenure and adjacent owners, including leased land
 - g. Any areas excluded from the treatment area (e.g. public water supplies, pā sites)
7. For pesticide aerial operations, the GPS data files showing the bait application flight lines, and the aircraft secondary positional information are combined with the bait log details and loaded to the NATIS1 GIS database.
 8. One Operational report is written for each operational plan (i.e. the same grouping standards as in Preparing phase step 1 apply).
 9. The details of the operational report are entered into the Operational reporting master spreadsheet.

Resources

- Operational report template [DOC-7129705](#)
- Operational report template: WAM hunting operations [DOC-7723946](#)
- Operational reporting master spreadsheet [DOC-7194322](#)
- Operational report example: aerial 1080 [DOC-7166335](#)
- Operational report example: bait stations [DOC-7187410](#)
- Operational report example: WAM goat ground hunting [DOC-7189506](#)
- Operational report example: stoat trapping [DOC-7263674](#)
- EPA aerial 1080 report instructions [docDM-382846](#)
- EPA aerial 1080 reporting requirements map [DOC-7478923](#)
- EPA aerial 1080 report example: [DOC-7287755](#)
- Your treatment area in the DOCgis Pesticides Application

3.6.2. Reporting phase step 2: Follow up on lessons and recommendations

This step applies to all operations if recommendations were identified. You can expect it to take 1 day to complete.

The objective of this step is to follow up on any new information recorded and recommendations made in the operational report.

Process

Step 1: Go to the Lessons Learned and General Recommendations section of the operational report.

Step 2: Identify what you can do to share any new information and progress each recommendation.

Step 3: Follow through with these actions.

Deliverable: New information communicated and recommendations followed up.

Checkpoints

You will have completed this step when:

- Recommendations have been followed up.
- Any new information about pesticides or traps, or changes recommended to DOC Animal Pests systems, has been shared with the Landscape Threats Advice team in the Terrestrial Biodiversity Group. For example:
 1. Results related to information needs on the DOC Performance Standards sheets
 2. Reports or publications not currently covered by a DOC Pesticide Information Review
 3. Effects on non-target species observed
 4. Results of field trials for any animal pest control method included in Current Agreed Best Practice
 5. Suggestions for improvements to SOPs
 6. Results from pesticide residue testing
 7. Suggested alternatives to personal protective equipment or other improvements to Safe handling sheets
 8. Suggestions for improvements to Current Agreed Best Practice
- You have considered media opportunities and other ways to continue community engagement.

Resources

- Your Operational report
- The relevant Pesticide Information Review [docDM-25413](#)
- [Current agreed best practice for animal pest control](#): updating best practice
- Vertebrate Pesticide Residue Database SOP [docDM-33461](#)
- Non-target capture record form [DOC-6158657](#)
- Tiakina Ngā Manu Engagement and Communications 4-year Strategy 2020-2024 [DOC-6315626](#)
- National Predator Control Programme: Guide to engaging with our Treaty Partner and communities at place [DOC-6290966](#)

4. Document records

4.1. Complete list of resources

Forms, templates, and examples

- Bait and carcass photographic record example [docDM-1481478](#)
- Communication plan template [docDM-22868](#)
- Communication plan template user guide [docDM-1108789](#)
- Communication plan – complex/new operation example [docDM-22869](#)
- Communication plan – simple/maintenance operation example [docDM-22870](#)
- Communication record example [docDM-22871](#)
- Compliance register template [docDM-1475273](#)
- Compliance register example aerial operation [docDM-1572651](#)
- Compliance register example bait station operation [DOC-6017602](#)
- Consultation fact sheet example [docDM-22874](#)
- Consultation fact sheet template [docDM-22872](#)
- Consultation fact sheet NPCP template [DOC-6174650](#)
- Consultation fact sheet NPCP example [DOC-7177104](#)
- DOC application form to use pesticides [docDM-95868](#)
- DOC application form with AEE example [DOC-2313380](#)
- Ecological problem statement examples [docDM-1552765](#)
- Eradication feasibility assessment template [DOC-7110779](#)
- Eradication operational design and logistics template [DOC-7756004](#)
- Eradication project Management Plan template [DOC-7754931](#)
- Eradication readiness check report template [DOC-7878544](#)
- Eradication scoping report template [DOC-7756009](#)
- Eradication task breakdown example spreadsheet [DOC-7878965](#)
- Landowner/occupier visit plan and record template [docDM-22881](#)
- National Predator Control Programme debrief template [DOC-5492238](#)
- Non-target capture record form [DOC-6158657](#)
- Notification fact sheet template [docDM-22877](#)
- Notification fact sheet example [docDM-22879](#)
- Notification fact sheet NPCP template [DOC-6174666](#)
- Notification fact sheet NPCP example [DOC-7078346](#)
- Operational plan template: best practice [docDM-1475373](#)
- Operational plan template: WAM hunting [DOC-7723431](#)
- Operational plan example: aerial 1080 [DOC-5488902](#)

- Operational plan example: bait stations [DOC-5916783](#)
- Operational plan example: DOC200 stoat trapping [DOC-5949271](#)
- Operational plan example: WAM goat hunting [DOC-5918086](#)
- Operational report template [DOC-7129705](#)
- Operational report template: WAM hunting operations [DOC-7723946](#)
- Operational report example: aerial 1080 [DOC-7166335](#)
- Operational report example: bait stations [DOC-7187410](#)
- Operational report example: WAM goat hunting [DOC-7189506](#)
- Operational report example: stoat trapping [DOC-7263674](#)
- Operational reporting master spreadsheet [DOC-7194322](#)
- Peer review template [docDM-318907](#)
- Post-operational update example [docDM-22889](#)
- Post-operational update NPCP template [DOC-7624959](#)
- Post-operational update NPCP example [DOC-7675086](#)
- Project Homepage: NPCP example [DOC-5492427](#)
- Project Homepage: WAM example [DOC-7723708](#)
- Resource Management Act (RMA) AEE form [docDM-96227](#)
- RMA AEE example: Possum control in Mount Malihbu Scenic Reserve [docDM-96243](#)
- Section 95E approval form [docDM-748579](#)
- Standard letter of consent from landowners/occupiers [docDM-95913](#)
- Task specification template [docDM-313054](#)

Resources

- Catch Per Unit Effort (CPUE) best practice guidance [DOC-10484338](#)
- Caution period calculator [docDM-690617](#)
- Craddock, P. 2003: Environmental breakdown of Pest-Off® poison bait (20ppm brodifacoum) at Tāwharanui Regional Park, North of Auckland. Report prepared for Northern Regional Parks, Auckland Regional Council (unpublished), Entomologica Consulting. Auckland, New Zealand. 25pp [docDM-311798](#)
- DOC Pesticide Information Reviews [docDM-25413](#)
- EPA aerial 1080 report instructions [docDM-382846](#)
- EPA aerial 1080 report example [DOC-7287755](#)
- EPA aerial 1080 reporting requirements map [DOC-7478923](#)
- Generating a concessionaires list [DOC-6278584](#)
- Guidelines for aerial 1080 baiting #1: Bucket calibration [DOC-2827796](#)
- Guidelines for aerial 1080 baiting #2: Managing air operations [DOC-2651365](#)
- Guidelines for aerial 1080 baiting #3: Considerations for setting up a helicopter loading site for aerial baiting using cereal pellets [docDM-1560571](#)

- NPCP Guide to engaging with our Treaty Partner and communities at place [DOC-6290966](#)
- NPCP resources for engagement and communication [DOC-5998295](#)
- NPCP weather forecasting for operational purposes [DOC-2929845](#)
- Overview of planning pest eradications [DOC-7711995](#)
- Pesticide summary information for operational planners [DOC-5920806](#)
- Status List (pesticides) [docDM-22655](#)
- Status List (traps) [DOC-5620413](#)
- Status List user guide [docDM-95853](#)
- Target pests for aerially applied 1080 pellets [DOC-2649524](#)
- Tiakina Ngā Manu Engagement and Communications 4-year Strategy 2020-2024 [DOC-6315626](#)
- Tips on running a good debrief [docDM-366280](#)
- Understanding the RMA for animal pest operations [docDM-96158](#)
- WAMP resources for engagement and communication [DOC-7624668](#)
- Who's Who in Animal Pests [docDM-98043](#)
- Wilson and Cannon (2005) Community consultation processes for aerial 1080 applications Science for Conservation No 247
<https://www.doc.govt.nz/globalassets/documents/science-and-technical/sfc247.pdf>
- Working out which consents you need for animal pest operations [docDM-1475279](#)
- Writing SMART targets [docDM-340202](#)

Intranet/websites

- [Animal pest management resources intranet page](#)
- [Animal pest welfare in firearms and live capture operations](#)
- Argentine ants in New Zealand
<https://argentineants.landcareresearch.co.nz/index.asp>
- [Bioweb](#) (logon access required)
- [Current agreed best practice for animal pest control](#)
- DOCgis <https://intmap.doc.govt.nz/internalmaps/index.html?viewer=docgis>
- [DOCgis Pesticides Application](#)
- [DOCgis Pesticides Application user guide](#)
- DOCWiki https://docwiki.depcon.internal/wiki/Pesticide_Application
- Environmental Protection Authority Application for Permission website
<https://www.epa.govt.nz/industry-areas/hazardous-substances/making-an-application/permissions/>
- [Eradication best practice document and planning tools](#)
- [Health and Safety Management Systems intranet page](#)
- [How to order DOC signs](#)

- [Information management and library intranet page](#)
- Inventory and Monitoring toolbox <https://www.doc.govt.nz/our-work/biodiversity-inventory-and-monitoring/>
- Metservice learning centre <https://about.metservice.com/our-company/learning-centre/how-to-read-weather-maps>
- Ministry of Health application form and guidance on public health permissions for VTAs <https://www.health.govt.nz/publications/guidelines-for-issuing-permissions-for-the-use-of-vertebrate-toxic-agents>
- NIWA Climate Database <https://data.niwa.co.nz/>
- Pest detective <https://web.archive.org/web/20220121175632/http://pestdetective.org.nz/>
- [Pestlink](#) (logon access required)
- PF2050 Practical guide to trapping <https://www.doc.govt.nz/globalassets/documents/conservation/threats-and-impacts/pf2050/trapping-guide-pf2050.pdf>
- [Policies, Standard Operating Procedures and Guidelines intranet page](#)
- [Procurement and purchasing pre-drafted contract intranet page](#)
- Protection of drinking water – guidance (Appendix 5 of Guidelines for Issuing Permissions for the Use of Vertebrate Toxic Agents) https://www.health.govt.nz/system/files/2011-11/guidelines-for-issuing-permissions-for-the-use-of-vertebrate-toxic-agents-29_july.pdf
- [Risk Manager](#)
- Trapping application <https://trap.nz/>
- [Trapping application intranet page](#)
- Weather websites (e.g. www.metvuw.com; www.metservice.co.nz)
- [Wild Animals Management programme intranet page](#)
- [Working with contractors intranet page](#)

SOPs/guidelines/policies

- Animal Pests SOP Definitions and FAQs [docDM-51708](#)
- Aerial 1080 in kea habitat SOP [DOC-2612859](#)
- Consultation Guidelines [olddm-780974](#)
- Consultation Policy [olddm-780975](#)
- Field Trials for Pest Operations SOP [docDM-51573](#)
- Firearms SOP [DOC-5960893](#)
- Helicopter aerial hunting SOP [DOC-6262530](#)
- Hunting safely (ground) one-page SOP [docDM-673812](#)
- Hunting safely (ground) technical document [docDM-751751](#)
- Management of Hazardous Substances SOP [DOC-6052105](#)

- Obtaining DOC permission for rodenticide use in island incursions SOP [DOC-2751605](#)
- Processing Applications for Vertebrate Pesticides and Trapping SOP [docDM-1490584](#)
- Procurement and Supplier Management SOP [docDM-912450](#)
- Use of second generation anticoagulants policy [docDM-97398](#)
- Vertebrate Pesticide Residue Database SOP [docDM-33461](#)
- Wild animal detection dog-handler team SOP [DOC-6615586](#)

4.2. Document history

Date	Details	Document ID and version	Amended by
2/06/2015	Effective date of new SOP	1.0	s9(2)(g)(ii)
17/08/2015	Change to pre-operational notification requirements for PAPP	1.1	s9(2)(g)(ii)
17/09/2015	Change to standard for pre-operational notification to MOH and other edits	1.2	s9(2)(g)(ii)
21/10/2015	Change to process for Pre-operational phase step 2 to clarify compulsory elements of the compliance register.	1.3	s9(2)(g)(ii)
25/11/2015	Amended scope (application of SOP to community groups). Change to 24 hour notice standards.	1.4	s9(2)(g)(ii)
9/02/2016	Job title changes as a result of the Pilot implementation. Resources added to Preparing phase step 7 and Planning phase step 3.	1.5	s9(2)(g)(ii)
3/11/2016	Incorporate requirements of DOCgis Pesticides Application. Grouping standards moved to Planning step 1.	1.6	s9(2)(g)(ii)
10/03/2017	Change to exemption for flying the boundary (all the criteria must be met). New standards and information about the Resource Management (Exemption) Act. Other minor clarifications.	1.7	s9(2)(g)(ii)

6/04/2017	Distinguish between treatment area and aerial application area for Operational Step 1. Change Reporting Step 1 to “always applies” as it contains legal standards. Reword standards and information about the Resource Management (Exemption) Act.	1.8	s9(2)(g)(ii)
5/05/2017	Public notice standard for viewing detailed map amended as Pesticide Summary map may not be sufficient as it does not include private land (if any).	1.9	s9(2)(g)(ii)
31/07/2017	Minor updates to links and resources.	1.10	s9(2)(g)(ii)
11/10/2017	Update to Pestlink reporting requirements, job titles, and add links to incident reporting requirements.	1.11	s9(2)(g)(ii)
28/11/2017	Updates from new Health and Safety at Work (Hazardous Substances) Regulations 2017.	2.0	s9(2)(g)(ii)
6/11/2018	Change to standard for maintaining warning signs. Add definition of broad scale use of insecticides to the scope.	2.1	s9(2)(g)(ii)
29/04/2019	Warning sign template changed.	2.2	s9(2)(g)(ii)
29/07/2019	Revise op plan template and examples. New step in Planning phase for DOCgis Pesticides App. Deleted audit information not relevant to operational planning from Operational phase step 5 and added more information about DOCgis Pesticides App. Move Post-operational update step to beginning of post-operational phase. Change to standard for public notice.	3.0	s9(2)(g)(ii)
5/09/2019	Move standard to confirm treatment boundaries during consultation from Preparing Step 8 to Planning Step 6. Add information on compulsory audiences to Planning step 6.	3.1	s9(2)(g)(ii)
9/10/2019	Standard relating to zinc phosphide use removed, as this is no longer a registered product.	3.2	s9(2)(g)(ii)

14/01/2020	Requirements for consultation and notification fact sheets included in standards (instead of compulsory templates). Added link to Tiakina Ngā Manu communication resources. Added notification standards for D+C.	3.3	s9(2)(g)(ii)
30/01/2020	Treatment blocks in DOGgis Application to be decreased in size if more than 5% of the block does not actually receive treatment.	3.4	s9(2)(g)(ii)
29/07/2020	RMA exemption post-operational reporting mapping standard expanded for clarity.	3.5	s9(2)(g)(ii)
29/09/2020	Update hyperlinks (DOGgis, outdoor sign manual) and clarify how an assessor should be assigned to an operation.	3.6	s9(2)(g)(ii)
15/03/2021	Add requirements for implementation of trap performance standards from TTAG risk assessments. Operational phase step 5: Add further prompts for incident reporting. Pestlink reporting: requirement for map to be sent to Bio planners removed as they will obtain it directly from GIS team; docCM number for communications plan to be sent. DOGgis Pest app: treatment data for aerial ops entered by GIS team, files saved to NATIS1. Add links: TNM Engagement Strategy, TNM Engagement Guide, and Generating a concessionaire list.	3.7	s9(2)(g)(ii)
19/04/2021	Update Planning phase step 5 and Pre-operational phase step 6 to reflect that applications for DOC permission for aerial operations are processed through SPT. Planning phase step 6 - risks and threats to be recorded in communication plan. All steps relating to consultation updated on advice from Legal (seeking information, recording decisions and outcomes). Add link to GMC templates.	3.8	s9(2)(g)(ii)
27/09/2021	Update scope to exclude some rodent incursion responses.	3.9	s9(2)(g)(ii)

	Add project homepage example. Update steps to expand on adding agreements/risks to compliance register. Revise visit plan and record template. Add prompt to update DOCgis Pest App in Planning phase step 4. Other minor clarifications/corrections.		
12/11/2021	Add possible resources to be used in Preparing phase steps 8 & 10. Update hyperlinks. Rearrange notification standards to make them easier to read. Add to warning sign standard that an organisation/office name is required (previously shown on graphic in standard but not in the wording). Clarify deliverables and standards for several steps where actions are required to be taken in the DOCgis Pest App.	3.10	s9(2)(g)(ii)
2/06/2022	Add link to MOH guidance on protection of drinking water supplies to Planning phase steps 4 & 6. Update standards for consultation/notification of adjoining landowners to include loading site.	3.11	s9(2)(g)(ii)
15/09/2022	Change TNM to National Predator Control Programme. Preparing phase step 7: add information about the process for unregistered pesticide uses. Planning phase step 4: add links to resources relevant to hunting operations. Pre-operational phase step 2: Added information for when a public health permission is not issued. Reporting phase step 1: prompt to add Pestlink reference number to DOCgis Pesticides Application prior to retiring all the treatment blocks.	3.12	s9(2)(g)(ii)

10/08/2023	Add resources to Planning phase step 4 (trap.nz), Operational phase step 5 (NPCP weather resources) and Post-operational phase step 5 (NPCP debrief template). Pre-operational phase step 6 – add information to process step 1. Post-operational phase step 3 – add information to process step 3. Correct minor formatting issues and update job titles.	3.13	s9(2)(g)(ii)
31/10/2023	Update hyperlinks to intranet pages for current agreed best practice	3.14	s9(2)(g)(ii)
12/02/2024	Update intranet links	3.15	s9(2)(g)(ii)
1/03/2024	Changes to replace Pestlink with new Operational reporting template. Various minor wording changes, including changing step names to better include non-pesticide operations.	3.16	s9(2)(g)(ii)
2/07/2024	Add hyperlinks to NPCP post-op update template & example, WAMP communication resources, and PF2050 trapping guide.	3.17	s9(2)(g)(ii)
3/09/2024	Add hyperlinks to Wild Animal Management Programme homepage example, and operational plan & report templates. Completed aerial 1080 post-operational reports to be sent to Regional Planner LNI (interim measure until roles are formally re-assigned following restructure).	3.18	s9(2)(g)(ii)
4/10/2024	Completed aerial 1080 post-operational reports to be sent to Senior Planning Advisor, National Operations.	3.19	s9(2)(g)(ii)
26/11/2024	Reference to Bio planner changed to Regional Pesticides Summary Coordinator. Add prompt to Reporting phase Step 1 to ask GIS Analyst for aerial 1080 report map to be saved to the s drive.	3.20	s9(2)(g)(ii)

28/01/2025	Update intranet page hyperlink for ordering signs and remove link to Outdoor sign manual as this is no longer listed on the Policies & Procedures intranet page.	3.21	s9(2)(g)(ii)
14/10/2025	Update details for where to send aerial permission applications. Replace references to Safe handling of pesticides SOP with Management of hazardous substances SOP. Add links to templates for eradication planning.	3.22	s9(2)(g)(ii)
16/02/2026	Simplification and transfer into new template as part of the Shared Services Improvement Project.	4.0	s9(2)(g)(ii)
6/03/2026	Contact name and email address for aerial 1080 reports updated.	4.1	s9(2)(g)(ii)

About this document

Disclaimer

This document has been written for Department of Conservation (DOC) staff and contractors. As a result, it includes DOC-specific terms and refers to internal documents that are only accessible to DOC staff and contractors. It is being made available to external groups and organisations to demonstrate departmental best practice. As these procedures have been prepared for the use of DOC staff and contractors, other users may require authorisation or caveats may apply. Any use by members of the public is at their own risk and DOC disclaims all liability for any risk.

Document Coordinator	s9(2)(g)(ii), Senior Technical Advisor, Landscape Threats Advice, Terrestrial Biodiversity Group
-----------------------------	--

Document Owner	s9(2)(g)(ii), Landscape Threats Advice Manager, Terrestrial Biodiversity Group
-----------------------	--

Approved for use by	s9(2)(g)(ii), Deputy Director-General, Biodiversity, Heritage & Visitors Group
----------------------------	--

Date: 20/02/2026

[DOC-10677781](#)

Last reviewed	16/02/2026 (please check this document within three years to ensure it is up to date)
----------------------	---

Classification	UNCLASSIFIED
-----------------------	--------------

docCM ID	docdm-1488532
-----------------	---------------