

Operational Report for Ship rat Control in the Hawdon, Andrews and Poulter valleys, Arthurs Pass National Park

22 Nov 2016 - 29 Nov 2016

22/05/2017

Department of Conservation
North Canterbury

Contents

1. Operation Summary

Operation Name	Ship rat Control in Hawdon, Andrews and Poulter valleys, Arthurs Pass National Park		
Operation Date	22 Nov 2016 - 29 Nov 2016		
District	North Canterbury	Region:	Eastern South Island
Pestlink Reference	1617WMK01		
Treatment Area	Hawdon, Andrews and Poulter valleys, Arthurs Pass National Park	Size (ha)	20946.00

Conservation Unit Name(s)	GA Id(s)
Arthur's Pass National Park	2806320

Treatment Block Details

Treatment Blocks	Size (ha)
Hawdon, Andrews and Poulter valleys	20946.00

Contractor Name Andersons and WaytoGo helicopters.

Treatment Dates	Start	Completion
Hawdon, Andrews and Poulter valleys	22 Nov 2016	29 Nov 2016

Target Pest Details

Treatment Blocks	Target Pests	Control Method	Name
Hawdon, Andrews and Poulter valleys	Ship rat	Pesticide Aerial	Pesticide - Aerial in Hawdon, Andrews and Poulter valleys-(1)

Conservation Outcome(s)

1. To ensure the perpetuation of Orange-fronted parakeet throughout their present range. 2. To reduce the Department of Conservation species ranking of OFP from Nationally Critical. Source: 'Orange-fronted parakeet (*Cyanoramphus malherbi*) recovery plan 1995 - 2005' (Grant and Kearvell, 2001):

Result Target(s)	Treatment Area/Block	What we got
<ul style="list-style-type: none">Rat populations will be reduced to below the threshold density that allows Orange-fronted parakeet populations to recover. For the time being this threshold is estimated to equate to 5% rodent tracking.	Hawdon, Andrews and Poulter valleys	Hawdon 0% Poulter 0%

Outcome Targets

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| <ul style="list-style-type: none">A viable breeding Orange-fronted parakeet population will still be present in the Hawdon & Poulter Valleys at the conclusion of the 2016 / 2017 breeding season. | What we got
No OFP's have been found in these valley's this season. There may be one OFP nest but yet to be confirmed. |
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2. Introduction

2.1 TREATMENT AREA

Non-target species

Common Name	Scientific Name
Red deer	<i>Cervus elaphus scoticus</i>
Pig	<i>Sus scrofa</i>
Chamois	<i>Rupicapra rupicapra</i>

Target benefit species

Common Name	Scientific Name
Malherb's parakeet, kakariki, kakariki, kakariki karaka, kakariki karaka, orangefronted parakeet, or	<i>Cyanoramphus malherbi</i>

Threatened species

Common Name	Scientific Name
Kea	<i>Nestor notabilis</i>
South Island Kaka, bush parrot, brown parrot, kawkaw	<i>Nestor meridionalis meridionalis</i>
Blue duck, Whio, mountain duck, blue mountain duck	<i>Hymenolaimus malacorhynchos</i>
mistletoe	<i>Loranthus</i> spp.
Great spotted kiwi, roa, roroa	<i>Apteryx haastii</i>
Mohua, Yellowhead, bush canary, mohoua, houa	<i>Mohoua ochrocephala</i>

Geographical location

The Hawdon, Andrews and Poulter valleys, Arthurs Pass National Park is situated 15 km West of Arthur's Pass.

TREATMENT BLOCK DETAILS:

Treatment block	Hawdon, Andrews and Poulter valleys	
Vegetation type	Beech Forest and Alpine / subalpine shrublands.	
Bioclimatic zone	sub-alpine	
Climate characteristics:		
Rainfall	4500 mm	
Temperature:	Average Summer	18.0
	Average Winter	8.0
Snow level	1200 m	
Altitude	600 to 1800 m	
Community and Iwi interests	All at risk bird species are of interest to various communities and Iwi.	
Historic sites	-	

2.2 MANAGEMENT HISTORY

Management history was not chosen to be shown in this operational report. This history is, however, available via Pestlink

3 Outcomes and Targets

3.1 CONSERVATION OUTCOMES

1. To ensure the perpetuation of Orange-fronted parakeet throughout their present range.
2. To reduce the Department of Conservation species ranking of OFP from Nationally Critical. Source: 'Orange-fronted parakeet (*Cyanoramphus malherbi*) recovery plan 1995 - 2005' (Grant and Kearvell, 2001):

3.2 TARGETS

3.2.1 Result Targets

The result targets for the treatment area were:

- Rat populations will be reduced to below the threshold density that allows Orange-fronted parakeet populations to recover. For the time being this threshold is estimated to equate to 5% rodent tracking.

3.2.2 Outcome Targets

The outcome targets for the treatment area were:

- A viable breeding Orange-fronted parakeet population will still be present in the Hawdon & Poulter Valleys at the conclusion of the 2016 / 2017 breeding season.

4 Consultation, Consents & Notifications

4.1 CONSULTATION

28 identified parties were consulted about the proposed activity prior to the original resource consent being sought in 2006. These parties included the local runanga, adjoining landowners/managers, recreational user groups, concessionaires, NGO's and conservation interest groups.

Fish and Game Council

Concessionaires and recreational groups

Conservation Board

Prior to each of the five occasions (2006, 2008, 2009 and 2012 and 2014) that the resource consent needed to be exercised, proposed operations were publicly notified. (nb current consent is for 2011-2016) Based on the responses from the original 2006 consultation and the subsequent public notices, all parties that had previously expressed an interest were contacted in respect of the current consent application.

The proposal was discussed with the Canterbury Aoraki Conservation Board at one of their meetings. All other parties received details, and an invitation to meet or respond, by post or email. A detailed record of all the consultation undertaken with these parties is provided in Appendix 4.1. The written correspondence sent and received is provided in Appendix 4.2. Except where noted otherwise, all communications on behalf of the Department of Conservation have been conducted.

Te Runanga Ngai Tuahuriri were sent an initial email outlining the application and inviting further discussion.

Ngai Tuahuriri have subsequently replied advising that they have no objection to a new resource consent being granted, provided consent conditions remain the same as the existing consent.

The Department has compulsory procedures that require face to face or telephone consultation with tangata whenua prior to DOC consent being sought for individual aerial 1080 operations.

The adjoining land manager/occupier Mt White Station was contacted by phone prior to each operation and also sent follow up e-mails outlining the proposed application and seeking written affected persons approval. (on behalf of Mt White Station) confirmed that he had no objection for details)

There has been another round of phone calls and e-mails for this current operation to the effected and interested parties mentioned above with no objections.

Consultation outcomes

In a follow-up phone conversation, (on behalf of Mt White Station) confirmed that he had no objection.

Lessons learned

Nil

4.2 CONSENTS

Consent	Consent date	File Reference	Permission ID
MOH	25/10/2016	NHT 02 04 04	16/1022CHRPB/BW
DOC	14/11/2016	NHT 02 04 04	2886789

Lessons learned

Nil - nb resource consent no longer required.

4.3 NOTIFICATION

All appropriate user groups, adjoining owners and effected parties were notified.

Lessons learned

NIL

5 Methods

5.1 TARGET SPECIES

Treatment Block Hawdon, Andrews and Poulter valleys

Control method	Name	Target pest species
Pesticide - Aerial	Pesticide - Aerial in Hawdon, Andrews and Poulter valleys-(1)	Ship rat

Treatment Block	Control Method	Name	Target Pest Species
Hawdon, Andrews and Poulter valleys	Pesticide - Aerial	Pesticide - Aerial in Hawdon, Andrews and Poulter valleys-(1)	Ship rat

Trade name of pesticide	0.15% 1080 Pellets RS5
Name of pesticide	Sodium fluoroacetate
Type of bait	Cereal pellet
Toxic loading	1.5 g/kg
Bait quality sampling	Not Conducted

Bait Details

Bait type	Pre-feed Cereal pellet	Toxic Cereal pellet
Lure/ mask/ deterrent	Cinnamon	Cinnamon
Lure/ mask/ deterrent	0.00%	0.00%
Dye	None	Green
Individual Bait Weight	6.0g	6.0g

Sowing Rate Details

Pre-feed				Toxic			
Date	Rate(kg/ha)	Wind Speed	Direction	Date	Rate(kg/ha)	Wind Speed	Direction
22/11/2016	2.00	Calm	NW	29/11/2016	2.00	Calm	NW

End of Caution Period Date	29/08/2017
Aircraft type	Squirrel AS 350 Hughes 500NT
Number of Aircraft	3

Sowing gear details

Description	Capacity
Standard 1080 spreader bucket.	600 kg

Type of navigational guidance system used spider tracker

Loading Method Hiab and loader.

Complaints and Incidents

Nil.

Other Details about this method

-

Deviations from planned operation

-

Lessons Learned

-

5.2 ENVIRONMENTAL EFFECTS

5.2.1 Effects on Non-Target Species

Potential for by kill of both introduced pest and native species.

Performance standard(s)	Followed ?	Monitored ?
MOH and DOC performance standards	Yes	Yes

Effectiveness of performance standards

Effective

Bykill of non-target species

Mice definitely effected but no others reported.

5.2.2 Effects on Soil and Water Quality

There is potential for possible pollution of waterways.

Performance standard(s)	Followed ?	Monitored ?
MOH and DOC performance standards	Yes	Yes

Effectiveness of performance standards

Effective.

5.2.3 Effects on Ecosystems

Potential for adverse ecosystem effects if important food chain links are compromised.

Performance standard(s)	Followed ?	Monitored ?
Avoid areas of low structural vegetation to lessen impact on Kea and Rock Wren. Avoid significant waterways, baits coloured and lured attract to rats but deter birds.	Yes	Yes

Effectiveness of performance standards

Effective.

5.2.4 Effects on Human Health

There is always potential for humans to ingest toxins. The risk to public health during this particular operation is considered very low, due to the low to moderate public use of the operational area

Performance standard(s)	Followed	Monitored
	?	?
DOC and MOH standards including signage advertising and notifications as well as avoidance of significant waterways and tracks cleared of any baits.	Yes	Yes

Effectiveness of performance standards

Effective

6 Monitoring Results and Outcomes

6.1 RESULT MONITORING - TARGET SPECIES

Result target(s)

Rat populations will be reduced to below the threshold density that allows Orange-fronted parakeet populations to recover. For the time being this threshold is estimated to equate to 5% rodent tracking.

6.1.1 Target Species Monitoring Tracking tunnels

Method:

Species monitored Ship rat - *Rattus rattus* in Hawdon, Andrews and Poulter valleys

Monitor method details

Pre and Post operation monitoring to take place.

Deviations

N/a

Target pest result details

	Pre	During/Post
Monitoring dates	October 2016	15 - 25/02/2017
Results	Hawdon 4.7% Poulter 0%	Hawdon 0% Poulter 0%

Result target met? Yes

Lessons Learned

N/a

6.2 RESULT MONITORING - ENVIRONMENTAL EFFECTS

6.2.1 Non Target Species

Monitoring of: Kiwi, Kea, Deer, other non targets.

Monitor Method details

Observations from staff and reports from public.

Deviations

None

Monitoring dates N/A

Results No non target effects reported.

Lessons Learned

N/A

6.2.2 Soil and Water Quality

Monitoring of: Water Quality

Monitor Method details

Buffer all significant waterways or on hut roof water collection systems.

Deviations

N/A

Monitoring dates 29/11/2016

Results No baits dropped in waterways or on huts.

Lessons Learned

N/A

6.2.3 Ecosystems

Monitoring of: Ecosystems not monitored. - General non target birdlife was observed.

Monitor Method details

N/A

Deviations

N/A

Monitoring dates N/A

Results N/A

Lessons Learned

N/A

6.2.4 Human Health

Monitoring of: Human Health

Monitor Method details

Record all reports from public regarding health effects. Report to MOH any operational discrepancies or issues that arise.

Deviations

N/A

Monitoring dates from 29/11/2016 till present

Results No adverse effects reported. 1 anti 1080 activist complained at Rangiora office re poisoning the environment and chem trails etc and is contemplating taking DOC to court??? - No toxic effects data tabled.

Lessons Learned

N/A.

6.3 OUTCOME MONITORING

Outcome targets

A viable breeding Orange-fronted parakeet population will still be present in the Hawdon & Poulter Valleys at the conclusion of the 2016 / 2017 breeding season.

6.3.1 Outcome monitoring : Malherb's parakeet, kakariki, kakariki, kakariki
karaka, kakariki karaka, orangefronted parakeet,
or - Cyanoramphus malherbi

Monitoring Method(s)

Monitoring information due date Ongoing

Method details

Encounter rates and nesting / fledging success

Monitoring dates

Outcome Results

No OFP's have been found in these valley's this season. There may be one OFP nest but yet to be confirmed.

Outcome target met?

No

Lessons Learned

More time, effort and science required to ascertain what is going on in the wild. We are rapidly arriving at a captive bred small population of OFP's.