

Result Target(s)	Treatment Area/Block	What we got
<ul style="list-style-type: none"> The project is not performance based however the client, the Department of Conservation has the following aims: <ul style="list-style-type: none"> • Possums: 1% or less residual trap-catch index of possums within four months of the operation occurring; • Rats: Rat tracking (FTT) of less than 5% to be achieved within the Hope River block immediately post operation. 	BFOB Cascade-Hope	18.13% BMI (3.83% RTC)

Outcome Targets	What we got
<ul style="list-style-type: none"> The mean foliar cover score for monitored mistletoe, wineberry and fuchsia does not decline below 50% during the three-year period after the operation. 	

2. Introduction

2.1 TREATMENT AREA

Non-target species

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

Target benefit species

Common Name	Scientific Name
bellbird	<i>Anthornis melanura</i>
whio	<i>Hymenolaimus malacorhynchos</i>

South Island Fantail	<i>Rhipidura fuliginosa fuliginosa</i>
fernbird	<i>Bowdleria punctata</i>
grey warbler	<i>Gerygone igata</i>
South Island kākā	<i>Nestor meridionalis meridionalis</i>
New Zealand pigeon	<i>Hemiphaga novaeseelandiae</i>
long-tailed cuckoo	<i>Eudynamys taitensis</i>
morepork	<i>Ninox novaeseelandiae novaeseelandiae</i>
bush falcon	<i>Falco novaeseelandiae "bush"</i>
-	<i>Acanthisitta chloris</i>
shining cuckoo	<i>Chrysococcyx lucidus lucidus</i>
silveryeye	<i>Zosterops lateralis</i>
tomtit	<i>Petroica macrocephala</i>
Tui	<i>Prothemadera novaeseelandiae novaeseelandiae</i>
snail	<i>Powelliphanta "vittatus"</i>
tree fuchsia	<i>Fuchsia excorticata</i>
red mistletoe	<i>Peraxilla tetrapetala</i>
scarlet mistletoe	<i>Peraxilla colensoi</i>

Threatened species

Common Name	Scientific Name
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Geographical location

The BFOB Cascade-Hope is situated 18 km NE of Neils Beach.

TREATMENT BLOCK DETAILS:

Treatment block	Cascade-Hope
Vegetation type	Mixed Beech and lowland coastal Podocarp
Bioclimatic zone	lowland montane sub-montane sub-alpine

Climate characteristics:

Rainfall	4000 mm
Temperature:	Average Summer 5.0
	Average Winter 15.0
Snow level	1500 m
Altitude	20-1161 m

Community and Iwi interests This treatment area is part of the Haast Roar block ballot system. The area is lightly used for hunting throughout the year. The upper Cascade river is sometimes used for fishing

and Jet Boating. The Cascade - Barn Bay 4x4 track is used to access beaches at Barn Bay and the Hope River. This track is also used by trampers to access the coast. Whitebaiters frequent the Cascade river during the season and some possum trappers venture into the area.

Historic sites N/A

2.2 MANAGEMENT HISTORY

Management history was chosen to be shown in this operational report. This history is, however, available via Pestlink.

3 Outcomes and Targets

3.1 CONSERVATION OUTCOMES

The structure and composition of the forest in the Hope river valley is maintained in its current state or better.

3.2 TARGETS

3.2.1 Result Targets

The result targets for the treatment area were:

- The project is not performance based however the client, the Department of Conservation has the following aims: • Possums: 1% or less residual trap-catch index of possums within four months of the operation occurring; • Rats: Rat tracking (FTT) of less than 5% to be achieved within the Hope River block immediately post operation.

3.2.2 Outcome Targets

The outcome targets for the treatment area were:

- The mean foliar cover score for monitored mistletoe, wineberry and fuchsia does not decline below 50% during the three-year period after the operation.

4 Consultation, Consents & Notifications

4.1 CONSULTATION

Consultation commenced on 29 March, when local iwi, recreation groups, local land owners and concessionaires were contacted and provided with information on the planned operation. Adjoining land owners and local hut owners were contacted and provided with a Key Fact Sheet which provided details around the purpose of the operation and a map of the indicative boundaries.

Consultation outcomes

All interested parties consulted/notified

Lessons learned

Nil

4.2 CONSENTS

Consent	Consent date	File Reference	Permission ID
DOC Permission	24/07/2018	DOC-5685750	5497695
Public Health Permission	22/07/2018	DOC-5702143	18-1134-CB-GRYP

Lessons learned

Nil

4.3 NOTIFICATION

Concessionaires, local & government agencies and landowners were emailed further detail regarding the operation throughout May 2018. All were provided with 24-hour notice that confirmed commencement of the operation.

Lessons learned

Nil

5 Methods

5.1 TARGET SPECIES

Treatment Block Cascade/Hope

Control method	Name	Target pest species
Pesticide - Aerial	Pesticide - Aerial in Cascade-Hope-(1)	Possum Ship rat Stoat

Treatment Block	Control Method	Name	Target Pest Species
Cascade/Hope	Pesticide - Aerial	Pesticide - Aerial in Cascade-Hope-(1)	Possum Ship rat Stoat

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

Bait Details

	Pre-feed	Toxic
Bait type	Cereal pellet	Cereal pellet
Lure/ mask/ deterrent	Cinnamon	Cinnamon
Lure/ mask/ deterrent	0.15%	0.30%

Dye	None	Green
Individual Bait Weight	6.0g	12.0g

Sowing Rate Details

Pre-feed			
Date	Rate(kg/ha)	Wind Speed	Direction
04/08/2018	1.50	Unknown	Nil
Toxic			
Date	Rate(kg/ha)	Wind Speed	Direction
24/08/2018	3.00	Unknown	Nil

Time between pre-feed and toxic 20
End of Caution Period Date 01/02/2019
Aircraft type Jet Ranger
Squirrel AS 350
Other
Long Ranger
Number of Aircraft 6

Sowing gear details

Description	Capacity
Under-slung trickle and broadcast buckets	900 kg

Type of navigational guidance TracMap
system used

Loading Method 300kg bags into leading hoppers, hoppers into under-slung buckets

Complaints and Incidents

N/A

Other Details about this method

N/A

Deviations from planned operation

N/A

Lessons Learned

N/A

5.2 ENVIRONMENTAL EFFECTS

5.2.1 Effects on Non-Target Species

Cattle are grazed in the river flats of the Cascade river. This area had a significant buffer from aerial sowing operations to mitigate the chance of accidental poisoning. Further to that, a flight corridor is in place from the loading site to the treatment area to minimise the area exposed to possible contamination.

Performance standard(s)	Followed?	Monitored?
Flight paths to and from the bait zones by aircraft equipped with loaded or unclean bait sowing equipment must avoid stocked paddocks	Yes	Yes
The boundaries of the bait preparation and loading site are marked and loading site signs 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	Yes	No
If there is any likelihood that farm stock has been exposed to 1080, the owner must be advised as soon as possible, and the stock removed from the area	N/A	N/A

Effectiveness of performance standards

No bait in unintended areas

By kill of non-target species

No reported effects on non-target species

5.2.2 Effects on Soil and Water Quality

Effects on Soil and Water Quality Not Applicable

5.2.3 Effects on Ecosystems

Effects on Ecosystems Not Applicable

5.2.4 Effects on Human Health

Water used for human consumption may contain trace levels of toxin

Performance standard(s)	Followed?	Monitored?
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 meters upstream of any point of extraction from a water source for a drinking water supply (not being used exclusively for stock)	Yes	Yes

Effectiveness of performance standards

No bait sown within the given parameters of any water source

6 Monitoring Results and Outcomes

6.1 RESULT MONITORING - TARGET SPECIES

Result target(s)

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four months of the operation occurring; • Rats: Rat tracking (FTT) of less than 5% to be achieved within the Hope River block immediately post operation.

6.1.1 Target Species Monitoring Wax Tag

Method:

Species monitored Possum - *Trichosurus vulpecula* in BFOB
Cascade/Hope

Monitor method details

7-night survey 10 wax tags over 40
lines

Deviations

Survey was 8 nights due to weather conditions

Target pest result details

	Pre	During/Post
Monitoring dates	/	12-20/12/2018
Results	/	18.13% BMI (3.83% RTC)

Result target met? No set measure

Lessons Learned

Nil

6.2 RESULT MONITORING - ENVIRONMENTAL EFFECTS

6.2.1 Non-Target Species

Monitoring of: Flight paths and stock movement

Monitor Method details

Visual monitoring of stock and GPS tracking from Helicopters

Deviations

Nil

Monitoring dates 24/08/2018

Results No Helicopter flight paths or sowing occurred in no-fly areas. Stock remained away from flight paths.

Lessons Learned

Nil

6.2.2 Soil and Water Quality

No monitoring of soil and water quality was undertaken.

6.2.3 Ecosystems

No monitoring of ecosystems was undertaken.

6.2.4 Human Health

Monitoring of: Flight paths

Monitor Method details

Monitor GPS flight paths around sensitive areas (water sources)

Deviations

Nil

Monitoring dates 24/08/2018

Results

No Flying/Bait within distances set by performance standards and PHP

Lessons Learned

Nil

6.3 OUTCOME MONITORING**Outcome targets**

The mean foliar cover score for monitored mistletoe, wineberry and fuchsia does not decline below 50% during the three-year period after the operation.

No monitoring of outcomes was undertaken

