Department of Conservation
Te Papa Atawhai

19-E-0529 DOC-6035120

27 September 2019

Tracy Livingston
Via fyi.org

Dear Ms Livingston

I refer to your official information requests of 4 and 5 August 2019 seeking information on the Dart Caples 1080 operation.

Our letter of 14 August 2019 advised that we have transferred part of your request to Queenstown Lakes District Council. This letter forms the Department's response.

Monitoring data

You asked:

> *What ecological testing has been carried out prior to this aerial poison operation - Dart, Routeburn and Caples Valleys August 2019? Please include current and up to date rat, mice, mustelid numbers, white tail deer and Red deer numbers. Please include current and up to date native bird species counts.*

There is no deer monitoring carried out in the Dart, Routeburn, Caples area.

Monitoring of rodents and mustelids is undertaken in the Dart, Routeburn, Caples area using tracking tunnels. More information on this method is available on our website at:

https://www.doc.govt.nz/globalassets/documents/science-and-technical/inventory-monitoring/im-toolbox-animal-pests-using-tracking-tunnels-to-monitor-rodents-and-mustelids.pdf

Rodent monitoring

The following table shows the most recent rodent monitoring:

	Dart – mean tracking rate		Caples – mean tracking rate	
	May 2019	August 2019	May 2019	August 2019
Rats	23%	25%	17%	12%
Mice	6%	52%	0%	17%

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February 2019 mustelid monitoring

This monitoring included mustelid lines in the bush, and combined mustelid and rodent monitoring in the alpine areas.

Caples and Greenstone Valleys

Mustelids were detected on 31% of lines, and the mean mustelid tracking rate per line was 16%.

Dart Valley

No mustelids were detected on the monitored lines. In the alpine area of the Routeburn, where monitoring was combined rodent and mustelids, there was a mean tracking rate per line for rats at 13% and mice at 58%.

Native bird monitoring

Bird monitoring has not been carried out specifically for the Dart, Routeburn Caples 1080 operation. However, we do carry out longer term monitoring of native birds in the Dart, Routeburn, Caples area.

The Department conducts 5-minute bird surveys in the Dart, Routeburn, Caples area annually, in October. We are providing you with the results of the most recent of these surveys, from October 2018. Please refer to the attached document schedule.

More information on the 5-minute bird count method is available at:

https://www.doc.govt.nz/globalassets/documents/science-and-technical/inventory-monitoring/im-toolbox-birds-incomplete-five-min-counts.pdf

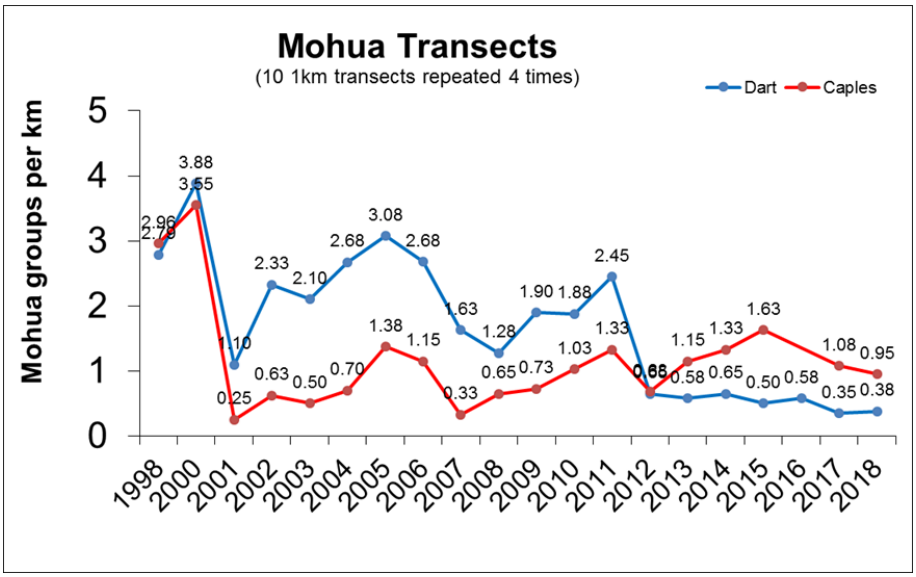
Mohua transect monitoring

The Department has undertaken mohua transect monitoring of the Caples and Dart Valleys since around 2000. Unfortunately, the monitoring shows a downward trend, with the most significant drop in numbers seen the year following beech mast cycles. During the 2011 beech mast, in which the area did not receive 1080 treatment, almost 80% of the local mohua population was lost.

More information on the transect monitoring method can be found at:

https://www.doc.govt.nz/globalassets/documents/science-and-technical/inventory-monitoring/im-toolbox-birds-incomplete-line-transect-counts.pdf

The following graph shows the result of mohua transect surveys over time.



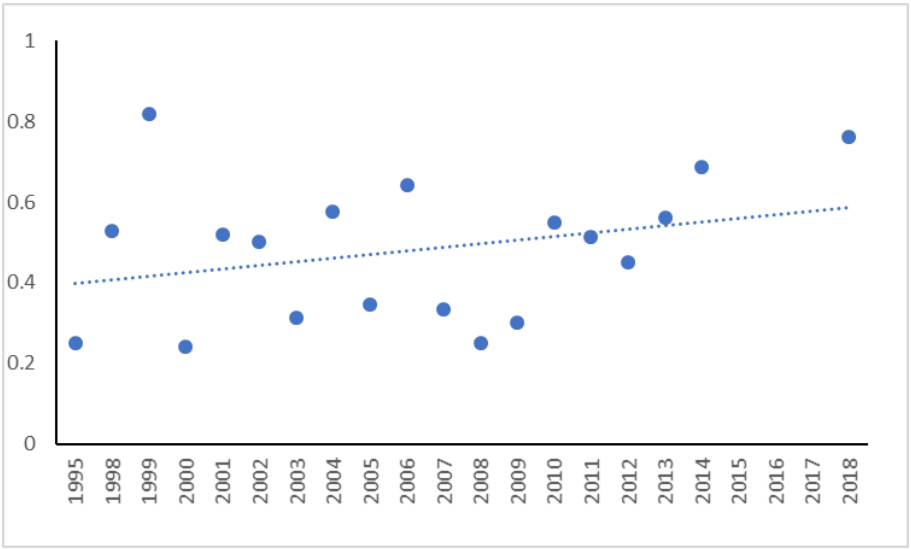
Whio surveys

Whio surveys are conducted with a whio dog. The first of these surveys was undertaken in the Dart Caples area in 2013, with a total of 6 whio counted. This season, 53 whio have been identified, comprising 11 pairs, 27 ducklings and 4 singles. This success can be attributed to intensive trapping to protect whio, control of mustelids by secondary poisoning from 1080, and translocation.

Bat transect monitoring

Bat transects are used as a simple method to detect trends in populations. The technique involves walking along a track in 1 km sections holding a bat detector and recording the number of bat passes. It is carried out in Spring (November) and Summer (February).

The following table shows the mean number of transects where bats were present in the Spring survey in the Dart Valley.



Deer repellent

You asked:

> *How long does deer repellent last on 1080 baits in cold and/or wet (winter) conditions?*

The Department does not hold any information on how long deer repellent lasts in cold, wet conditions. We are therefore refusing this part of your request under section 18(g) of the OIA. We have no grounds for believing that the information is held by another department or Minister of the Crown or organisation, or by a local authority.

We note also that the life of 1080 bait itself is reasonably short in wet weather. In conditions of 11 – 20°C and 8 – 15% moisture, 1080 has been shown to break down in 1 – 2 weeks (King et al. 1994).

Purpose of operation

You asked:

> *What is DoC attempting to achieve in these drops? In other words, what animals are they trying to kill, and what animals are they trying to protect?*

The purpose of the Dart, Routeburn, Caples Tiakina Nga Manu operation is to protect mohua populations from rodents. Stoats will also be controlled through secondary poisoning. Other species that are expected to benefit from the predator control are whio, long-tailed bats, kaka, rock wren, kea, karearea, kereru, kakariki and toutouwai.

Assessment of impact on native species

You asked:

> *Of the animal species DoC is attempting to protect, have those species previously been found to be adversely affected by 1080 poison operations?*
>
> *What does your data suggest, from previous poison operations in this area, is the likely native species to experience by-kill and what amount is considered acceptable to DoC? What non-native species is expected to experience by-kill and what amount is considered acceptable?*

The Department takes a population-level approach to conservation, which means that the risk to individual birds is weighed against the benefit to the population as a whole.

We are providing you with the relevant excerpt from the document *Assessment of Environmental Effects for Rat and Possum Control in the Dart-Routeburn-Caples Treatment Area, July 2016 –June 2021*. This document considers the potential effects of aerial 1080 pest control on native species in the Dart, Routeburn, Caples area.

Ground control

You asked:

> *DoC's data appears to point to the fact that rat populations increase to 5 to 6 times greater than before the poison operation in under a year, after a 1080 poison operation and therefore further endanger bird populations, and bearing in mind that rats need constant predation to effectively manage their numbers and protect our bird species, what is DoC doing in this area by way of ground control to prevent this happening?*

Your question is based on a false premise. The Department's monitoring data shows that 1080 is effective at protecting our native species. In some areas, we do use a combination of aerial and ground control. However, in many of the locations where 1080 is used, ground control is not feasible because of the number of traps or bait stations that would be required, and the tracks that would have to be cut into the bush, walked regularly and maintained.

In the Dart, Routeburn, Caples area, one small bait station network has been set up as an extra precaution in case it is needed to help protect the mohua population from rodents. The decision as to whether or not this will be required is yet to be made.

Trapping budget

You asked:

> *What budget has been set for trapping of rats, mice and mustelids in this region (the area being poisoned) for the previous ten years, and for the next five years?*

Trapping in the Dart and Caples Valleys targets stoats and consists of the Dart River -Lower, Dart River – Upper, Dart Riverbed and Greenstone Caples areas. We are providing you with actual budget figures for the last five years in the table below. Note that trapping was carried out in 2011/12, although no budget was specifically allocated to it.

Financial year	**Actual Budget**
2009/10	$47,239
2010/11	$44,241
2011/12	-
2012/13	$18,633
2013/14	$80,386
2014/15	$235,487
2015/16	$191,068

2016/17	$149,390
2017/18	$104,306
2018/19	$99,862
2019/20	$124,502

The table below shows the proposed budget for the next five years for traps in the Dart River -Lower Dart River – Upper, Dart Riverbed and Greenstone Caples areas. Note that these figures are unconfirmed and are therefore subject to change.

Financial year	Proposed budget
2020/21	$124,502
2021/22	$124,502
2022/23	$124,502
2023/24	$124,502
2024/25	$125,078

Budget for 1080 alternatives

You asked:

> *What budget has been set aside by this DOC region for research into 1080 poison alternatives specific to this region*

Research into alternatives to 1080 is not funded at a regional level. However, there is a national budget for this purpose – the Government is investing $2 million in 2019/20. More information is available on our website at:

https://www.doc.govt.nz/nature/pests-and-threats/predator-free-2050/goal-tactics-and-new-technology/tools-to-market/

Bait density

You asked:

> *What the amount of bait used and the bait coverage rate for this poison operation?*

The planned treatment block is a maximum of 19,465 hectares. The application rate is yet to be confirmed but will be between 1.5kg/ha - 3kg/ha.

Ecological testing

You asked:

> *What are the plans for post-1080 drop ecological tests - insects numbers, soil biome, 1080 uptake into plant life - that sort of thing?*

The Department does not carry out these types of tests as a matter of course, and no such testing is planned for the Dart, Routeburn, Caples operation.

This is because 1080 does not bioaccumulate in soil and presents little risk to the surrounding environment. More information on this topic can be found on our website at:

https://www.doc.govt.nz/resources/archive/pf20501080/1080-safety-and-transparency/

https://www.doc.govt.nz/nature/pests-and-threats/methods-of-control/1080/how-to-keep-livestock-and-pets-safe/

Water testing

You asked:

> *Where is the surface water testing to be carried out for this poison operation? (Bearing in mind that this operation will drop enough poison to kill several hundred thousand humans, it's probably worth making sure that the poison isn't ending up in people's drinking water.)*
>
> *There have been a number of 1080 poison operations in this region over the past ten years. in light of that, is Glenorchy's drinking water being tested for both fluoroacetate and fluorocitrate?*

Water testing is not required by the Ministry of Health for the Dart, Routeburn, Caples operation.

There is no evidence that drinking water has ever been contaminated with 1080 (to be classed as contaminated, drinking water has to contain 2 or more parts per billion of 1080). Extensive research and monitoring in water catchments that have been treated with 1080 show that contamination is highly improbable when the current safety procedures are followed.

More information on 1080 and drinking water can be found on our website at:

https://www.doc.govt.nz/nature/pests-and-threats/methods-of-control/1080/using-1080-safely/1080-and-tap-water/

Notification process

You asked:

> *As 1080 poison has been shown to be teratogenic at parts per billion, and cause miscarriages at extremely low doses, what effort, if any, has been made to warn pregnant Glenorchy residents about this fact, and for them to take special precautions? Are you aware if the Public Health Officer has made an attempt to contact and warn the locals about this?*

Again, your question is based on a false premise. As explained above, there is no evidence that drinking water has ever been contaminated with 1080. Consequently, the Department does not specifically 'warn pregnant Glenorchy residents'.

However, we do undertake a pre-operational notification process across a wide audience, including iwi, landowners and occupiers, farmers, schools, hunting, fishing and recreational groups, tourism operators, conservation groups, regional and local government, businesses, animal welfare and medical specialists. We also place notices in local newspapers, erect warning signs in the operational area, and post alerts for walking tracks on the DOC website.

We are providing you with a copy of one of the public notices for the 2019 Routeburn Dart Caples operation for your information.

You have the right to seek an investigation and review by the Ombudsman of this decision. Information about how to make a complaint is available at www.ombudsman.parliament.nz or freephone 0800 802 602.

If you wish to discuss this decision with us, please feel free to contact me at this email address.

Please note that this letter (with your personal details removed) and enclosed documents may be published on the Department's website.

Yours sincerely

Amber Bill
Director, Biodiversity Threats

Document schedule

Item	Date	Document description	Decision
1	24 July 2019	Dart Caples Routeburn 5 Minute Bird Counts 2018	Released in full
2	April 2016	Excerpt from Assessment of Environmental Effects for Rat and Possum Control in the Dart-Routeburn-Caples Treatment Area, July 2016 –June 2021	Released in full
3	16 July 2019	Notice in the Southland Times: Predator control in the Dart, Routeburn and Caples Valleys	Released in full