

Consulting on the protection of vulnerable native species in Nelson Lakes National Park

The Department of Conservation's Rotoiti Nelson Lakes District plans to reduce rat, stoat, and possum numbers to protect kea and kiwi in Nelson Lakes National Park.

Native species in danger of extinction in the Nelson Lakes National Park include great spotted kiwi/roroa, kākārīki/parakeet, kākā, kea, South Island robin/toutouwai, pekapeka/long-tailed bats, giant land snails (*Powelliphanta* spp.), and whio. Predator control on the western side of the St Arnaud range and the Travers and Sabine valleys will give these species a chance to breed and their young to reach adulthood.

In autumn 2019 most of New Zealand's native beech forests experienced an exceptionally heavy beech seed fall and alpine tussock seeding ('mast'). At Lakes Rotoiti and Rotoroa, Department of Conservation (DOC) rangers monitored both a massive increase in the number of rats and mice due to the amount of seed available as food, and a subsequent increase in stoat numbers during summer as they fed on the rats and mice. These very high numbers of rats and stoats put all birds, giant land snails, long-tailed bats, lizards and insects under even greater predation pressure than they usually face.

In addition, we know from previous research at the Rotoiti Nature Recovery Project (RNRP) in the St Arnaud Range that during winter months, rodent numbers decline which forces stoats to switch their food source to birds.

The most recent predator monitoring at the end of February 2020 at Rotoiti and Rotoroa shows rat and stoat populations are still much higher than normal.



Kea playing *Photo: Andrew Walmsley*

Where are we proposing to control predators?

DOC is planning predator control using aerially applied 1080 bait pellets over an area up to 33,000ha (see attached map) in the Nelson Lakes National Park during winter 2020. This would include the Travers and Sabine valleys, the western flanks of the St Arnaud Range and the north western flanks of the Travers Range, including the Te Horowai- Speargrass Creek and the headwaters of the Hinemoatu-Howard River.

The size, shape and mountainous fringe of the proposed area is designed to limit reinvasion by predators as much as possible. This operation can reasonably be expected to achieve two summers of lowered stoat populations.

DOC will continue to carry out ground-based trapping using DOC200 traps in the 5000 ha RNRP area.

Why a 1080 operation?

Aerial application of cereal pellets with 1080 is the most effective control method over large areas. It is the only viable method in remote, rugged terrain. Ground based trapping and bait stations are effective in smaller more accessible areas, as in the RNRP site.

Helicopters with calibrated buckets distribute pellets along pre-determined and GPS monitored flight paths.

The cereal pellets used in the operation are targeted at rodents. Possums are also killed. Stoats are killed after they eat the rodents and possums that have consumed the pellets.

Predator control works

Research from the RNRP shows that South Island robin/toutouwai and kākā breed more successfully with intensive pest control.

Monitoring of kea nesting success and survival following mast seeding events (including at Nelson Lakes) showed that egg and chick survival was very poor, less than one in ten during the post-seed-fall year in the absence of predator control, but more than seven in ten when predators were controlled to low numbers over a large area by applying aerial 1080.

Great spotted kiwi or roroa, is the largest of New Zealand's kiwi species. Despite their size, chicks are vulnerable to stoats until they weight around 1kg. Roroa at Rotoiti have been doing well and are migrating deeper into the National Park away from the area protected by trapping.

The proposed timing of the Nelson Lakes aerial 1080 operation will coincide with the beginning of the nesting for both kiwi and kea, giving them the best possible chance for a successful breeding season in 2020.

Monitoring results for species at one site generally hold true for other areas. For more monitoring results see: <https://www.doc.govt.nz/nature/pests-and-threats/methods-of-control/1080/proof-that-1080-is-saving-our-species/>

Time frame

At this stage, this operation is planned to occur between 1 July and 31 August 2020. The operation is weather dependent. You will be notified of the more specific time for the operation.

Consultation – Have your say

The Department is consulting on the effects of this predator control operation and would like your views as Treaty Partners, stakeholders, affected landowners and local community, on the proposed operation; how it affects you, and what we can do to mitigate these effects. Some of this consultation will be conducted by our contractor, Vector Free Marlborough Ltd (VFML). Either DOC or VFML will be in touch to arrange a suitable time to visit and discuss the operation with you.



South Island robin/toutouwai Photo: Shellie Evans

Planning

DOC engages and works closely with its Treaty Partner for all predator control. The Department also consults with stakeholders, affected landowners and communities.

Following feedback from this consultation, there will be decisions on what changes can be made to the operational plan to mitigate any effects.

A notification fact sheet will be distributed closer to the time to confirm any changes to the boundary plan and the timeframe.

Also, our contractor Vector Free Marlborough Ltd (VFML) will contact all neighbours, advertise in the local newspaper and place warning signs at entrances to public conservation land immediately prior to the operation starting.

The Department will contact iwi, landowners and stakeholders after the operation to inform them when the operation has been completed and provide details of reduction of predator numbers.

Use of 1080 requires permission from the local Public Health Protection office of the Ministry of Health.

DOC assesses vertebrate predator control operations that use a toxin on behalf of the Environmental Protection Agency (EPA). DOC staff and their contractors follow procedures approved by the EPA. These regulations ensure that the toxin is applied to safeguard the public and the environment.

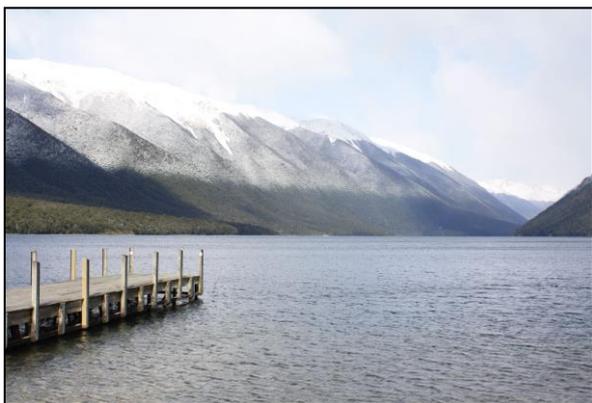
Key Facts: What you need to know.

1080 is a manufactured, biodegradable toxin. Its active ingredient, fluoroacetate is a salt that occurs naturally in poisonous plants in Australia, Africa and Brazil. It is broken down naturally by micro-organisms, fungi and plants into harmless compounds and does not leave permanent residues in soil, water, plants or animals.

The Department of Conservation complies with all relevant regulations and takes a precautionary approach to the aerial application of biodegradable 1080 toxin.

All operations begin with an aerial pre-feed of non-toxic bait to prime possums and rodents to eat the toxic bait that will be applied afterwards.

- The toxic cereal bait pellets contain 0.15% of 1080. They are about 2cm long, cylindrical and dyed green.
- Non-toxic pre-feed cereal pellets are about 2cm long, cylindrical and sandy coloured (not-dyed).



St Arnaud Range *Photo: Tracey Grose*

Managing risk

1080 is poisonous to humans, domestic and game animals. Dogs are highly susceptible. In areas where the toxin has been applied, the risk to dogs will remain until poisoned carcasses have disintegrated, which can be more than six months. Dogs are prohibited throughout the National Park.

These risks can be eliminated by following these rules:

DO NOT touch bait

WATCH children at all times

DO NOT EAT animals from this area

Toxic baits and carcasses are **DEADLY to DOGS**

Observe these rules whenever you see warning signs about pesticides. These warning signs indicate pesticide residues may be still present in baits and animals. When signs are removed this means you can resume normal activities in the area.

For more information

DOC Rotoiti Nelson Lakes

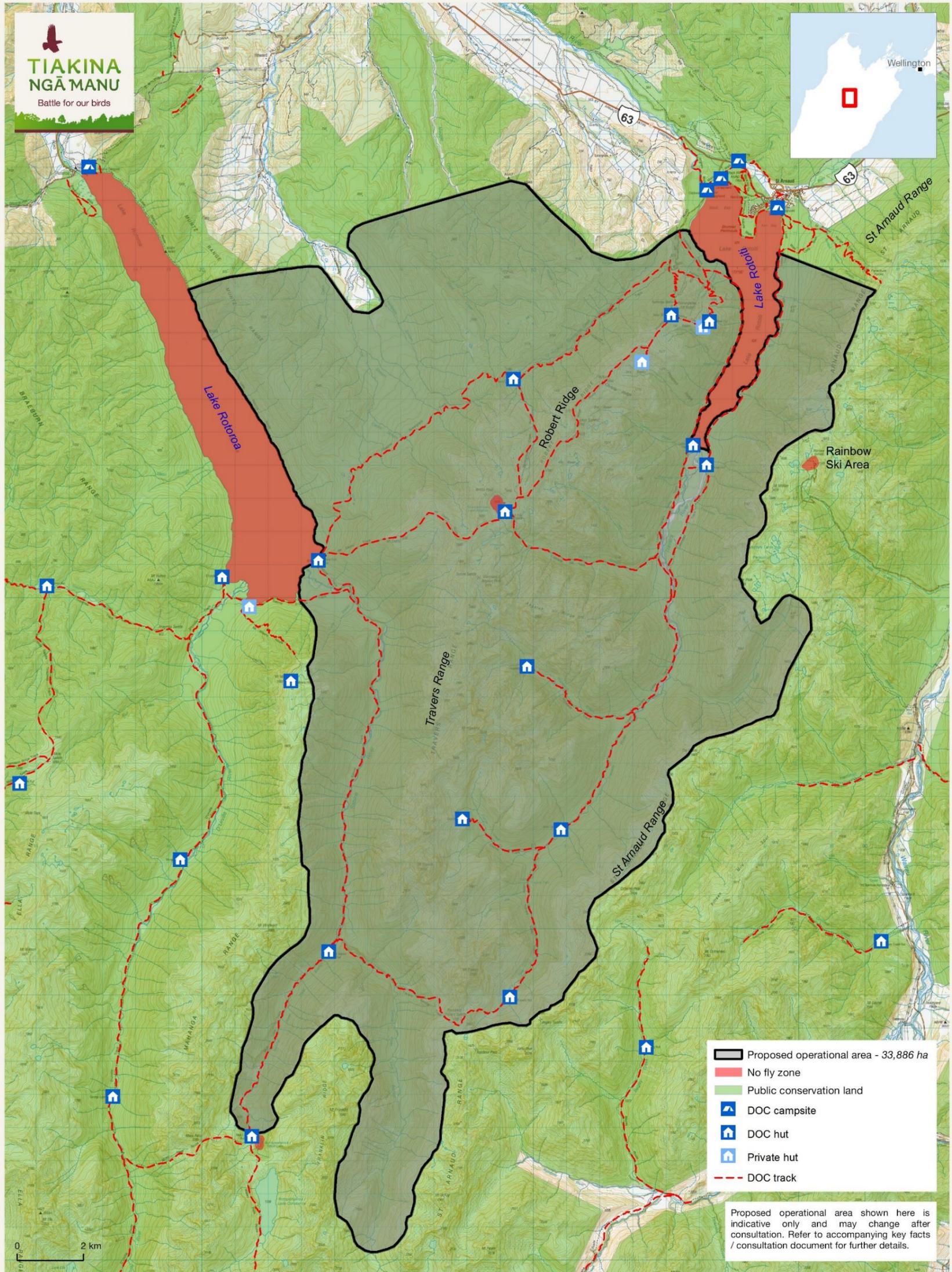
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This map shows the proposed application area for predator control. It is indicative: the boundaries may change subject to consultation and other operation planning requirements. The entire proposed application area is 33,886ha (within the black boundaries). Areas shaded red are 'no fly zones' and include the lakes and the Rainbow Ski Area. Areas under solid snow cover when the operation is flown will not receive any bait.



St Arnaud
 Aerial Predator Control 2020
 Proposed operational area: 33,886 ha

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