

Predator response Arthur's Pass



A joint approach

OSPRI and the Department of Conservation (DOC) are collaborating on predator control operations in Arthur's Pass in 2022. This collaboration will increase the effectiveness and efficiency of achieving their respective objectives: OSPRI, to eradicate TB and DOC, to protect native plants and wildlife.

Before operations start, both agencies will jointly seek the views of iwi and key stakeholders. Affected parties will also be consulted by the contractors undertaking the operations on DOC and OSPRI's behalf.

Goal 1: Protecting native species through predator control

The Arthur's Pass area is predominately beech forest with open and steep sided

river valleys that extend to tussock lands and exposed mountain tops, with podocarp-hardwood forest on the West Coast. It is home to many native species that are under threat including kākārīki karaka/orange-fronted parakeet, roroa/great spotted kiwi, pīwauwau/rock wren and mohua/yellowhead.

Predator control will increase the survival rate of these vulnerable taonga and other native species in the region.

Introduced predators including rats, stoats, and possums eat the adults, chicks, and eggs of these species. Rats also eat large amounts of seed which reduces the amount available for forest regeneration. Possums have devastating impacts on forest health by browsing foliage and fruit, reducing the ecosystems' ability to support native wildlife.

Without predator control these already vulnerable populations are at serious risk, in some cases localised extinction.

The key goals of DOC's predator control are to:

- Maintain and improve the health of natural areas of public conservation land.
- Protect and enhance at risk native wildlife in those areas.

Kākārīki karaka/orange fronted kakariki

Predator control has been undertaken to protect the critically endangered kākārīki karaka/orange-fronted parakeet in the Arthur's Pass area since 2005. In 2019 a similar predator control operation was undertaken by DOC. Since then, the wild population of kākārīki karaka/orange-fronted parakeet in Arthur's Pass and Lake Sumner has grown from approximately 150–200 to around 360 birds.

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Kākāriki karaka are a taonga species for Ngāi Tahu. DOC is working in partnership with the iwi to protect these birds and other native species.

This parakeet is our rarest mainland forest bird and it has been declared extinct twice in the past. The birds are vulnerable to predators, especially when they are breeding and sitting on nests in holes in trees, making them easy targets for predators. They have a strong-hold in Arthur's Pass and predator control is critical for their protection.

Roroo/great spotted kiwi

There are roroo/great spotted kiwi populations throughout the Arthur's Pass operational area with strongholds in the Hawdon, Andrews, Poulter, North and South Branch of the Hurunui and Taramakau valleys. Arthur's Pass is one of three locations targeted nationally to improve the breeding success of roroo/great spotted kiwi.



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Kea

Kea are badly impacted by rats, stoats, and possums. Studies show on average 55% of kea nests were successful up to a year after 1080 treatment but less than 2% of nests produced chicks where there was no 1080 predator control.



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Whio

Whio are only found in New Zealand and face the risk of becoming extinct. They are a key indicator of healthy rivers and streams. Vulnerable small populations can be found in the Arthur's Pass area, however, numbers are increasing where predator control has been completed.

Without predator control:

- 9 out of every 10 kiwi chicks die before they reach breeding age.
- A 2017 study in the Northern Paparua Range found that 100% of roroo chicks were killed by stoats.

With predator control:

A study of kiwi chick survival in Kahurangi National Park has shown that aerial 1080 operations significantly increase kiwi chick survival up to 70%. The study also showed increased kiwi chick survival for two seasons after 1080 use to control predators.

Protecting species in Arthur's Pass district

DOC has successfully refined and improved predator control over several decades, successfully maintaining threatened species populations and the habitats in which they live.

In 2022 DOC will complete predator control over approximately 123,529 hectares in the Arthur's Pass area.

This control protects and enhances populations of kākāriki karaka/orange-fronted parakeet, roroo great/spotted kiwi, pīwauwau/rock wren and mohua/yellowhead and other native bird species.

A mix of aerial 1080 and ground control (traps and toxins) has proven to be the most effective method to suppress rodents, stoats, and possums.

Operations are designed to bring maximum benefit to vulnerable native species. At some sites regular ongoing predator control keeps predator

numbers as low as possible to allow vulnerable species to increase breeding success. At other sites, reactionary control is undertaken to prevent plagues of rodents and stoats following particularly high beech flowering/seeding years (known as "mast" years).

Verifying results

DOC undertakes predator population assessments before and after operations are completed. This provides greater knowledge about the effectiveness of the operation and whether improvements or changes need to be made on future work.

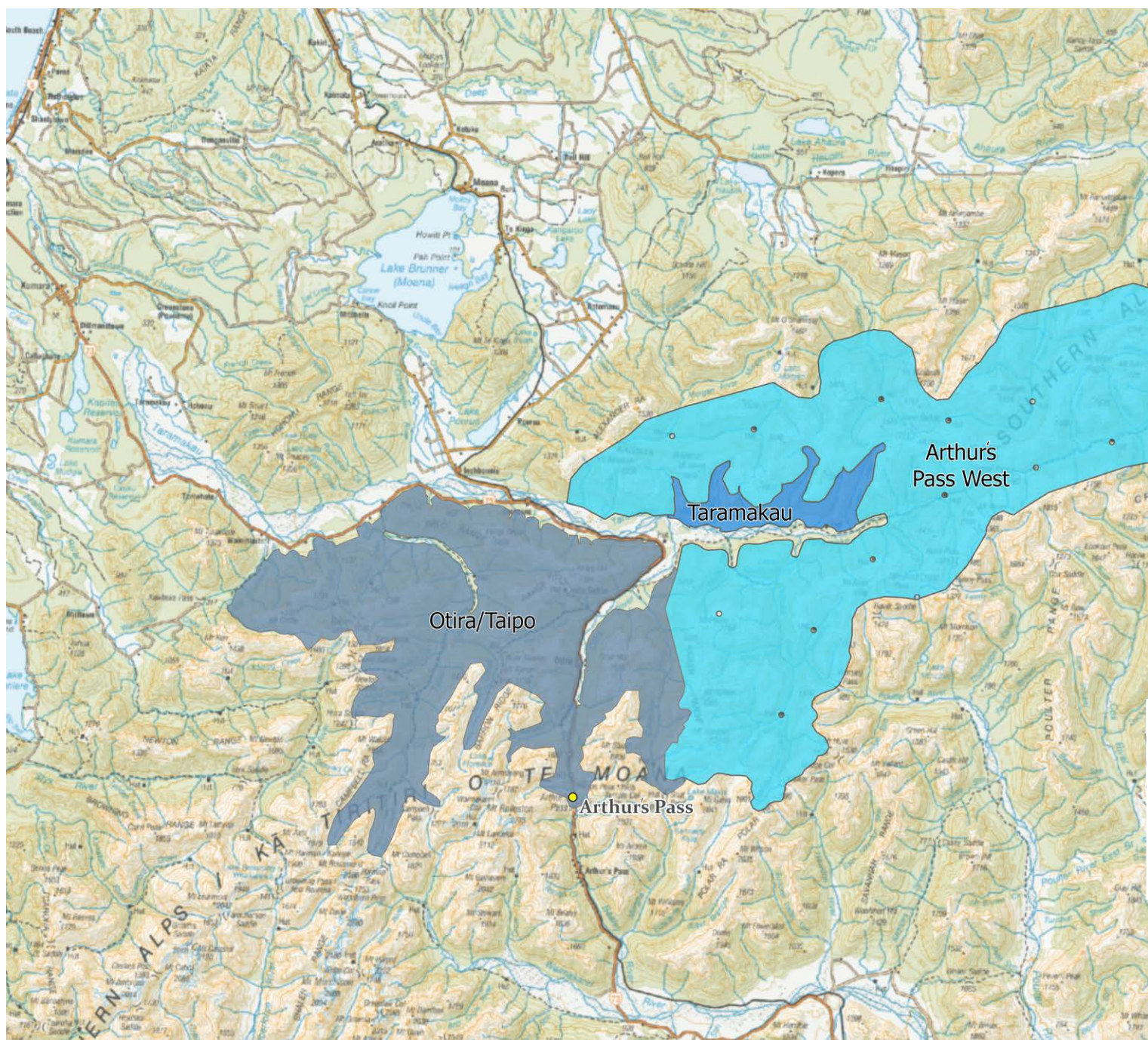
The results of rodent and stoat predator control are measured using tracking tunnels to assess predator numbers before and after control operations. The status of vulnerable species and natural areas are assessed by a range of methods, including bird counts, kiwi call counting and checking nesting success.

Kea mitigation work

1080 has been extensively researched and it is proven to effectively protect New Zealand's wildlife. 1080 is far less toxic to birds than mammals but some of our native birds are susceptible, for example kea.

In line with DOC's 'Kea code of Practice' OSPRI and DOC are undertaking several activities to mitigate the impact of 1080 on the kea population in the Arthur's Pass National Park and surrounding areas.

OSPRI is working with DOC to undertake bait aversion training with local kea. The aversion method was developed



by Zero Invasive Predators (ZIP) and trialled successfully in the Perth River Valley pest operations in South Westland.

More information can be found on the ZIP website: www.zip.org.nz

With the proposed aerial operations, OSPRI and DOC will undertake kea aversion training in the 2 months prior to toxin application. This training involves using tahr, pig or goat carcasses as a protein lure and cereal pellets with the additive Anthraquinone. This has a fast-acting but brief effect of making kea feel sick shortly after ingesting the pellets, with the intention of deterring them from eating those pellets in future while causing no lasting

harm to them. Kea are tagged and GPS tracked to increase our understanding of their movements in the area and interactions with the carcass sites.

There is also a trial of d-pulegone which is a primary repellent designed to make the bait smell unattractive to kea without affecting its uptake by pest species. This is in its early stages of development and is currently being tested to assess its efficacy in repelling wild kea at different concentrations.

Please do not touch any kea aversion training devices installed in the area and treat all bait as toxic.



Further information

For details on the kea mitigation trials please visit the DOC Pass Visitor Centre for factsheets.

For more information on the 'Kea Code of Practice' and minimising long term negative impacts on kea please visit www.doc.govt.nz



TBfree

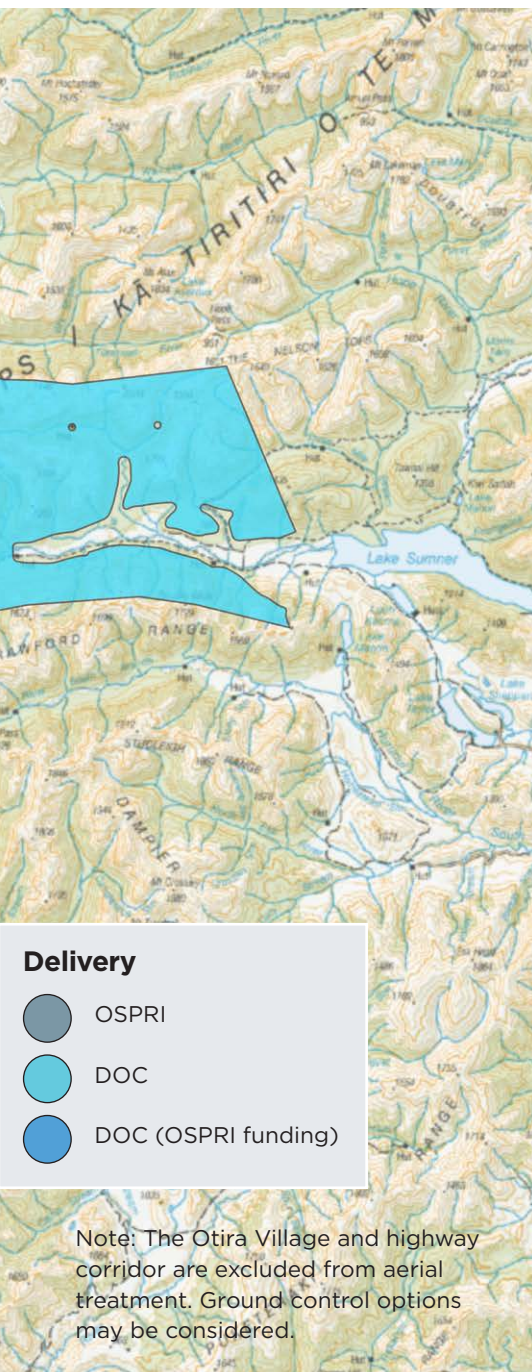
TBfree is an OSPRI programme



ospri.co.nz



0800 482 463



Goal 2: Targeting possums to eradicate TB

There is a long history of TB infection in cattle herds and wildlife in the Taramakau Valley.

Reducing and keeping the possum population low, lessens the risk of TB being spread.

OSPRI's TBfree programme uses possum control, along with regular herd testing and movement restrictions to achieve bovine TB eradication goals. Information from wild animal surveys, recent and historic findings of TB in wild animals, herd testing results and the operational history of the region are used when planning operations.

TBfree eradication goals are:

- TB freedom in cattle and deer herds by 2026.
- TB freedom in possums by 2040.
- TB freedom in all wildlife by 2055.

Aerial control

Aerial control using 1080 means large areas can be effectively treated in a short time frame. It is often used in rugged and remote areas that are otherwise difficult to treat.

Application rates are low, usually 1.5–2kg bait per hectare with each bait containing around 0.15% of 1080.

✓ Biodegradable

1080 is biodegradable which means it is broken down by micro-organisms in water and soil into harmless elements. It does not leave permanent residues in water, soil, plants, or animals.

✓ Naturally occurring

The active component occurs naturally in many plants in Australia, South America, and Africa as a defence against browsing animals.

Our goals



2026

TB freedom in cattle and deer herds



2040

TB freedom in possums



2055

Biological eradication

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Timeframe

The aerial operations will begin in June 2022. There will be an initial pre-feed application of non-toxic cereal baits to prime the possums and rodents to eat the toxic baits. The pre-feed cereal baits will be green coloured to assist the bait aversion training with kea. The toxic bait will be applied 1–2 weeks afterwards. Toxic cereal pellets contain 0.15% of 1080 and are dyed green. Exact dates will be weather dependent.

Planning

Before an operation, contractors will visit affected landowners and occupiers to consult on effects. They will discuss boundary issues, water supply safety, the management of any risks to dogs and livestock and how to reduce any adverse effects of the operation.

Consents from the Department of Conservation and the Ministry of Health are required for these operations.



Notification

Affected landowners and occupiers will be contacted again before operations start, notices will be published in local newspapers and warning signs will be placed at all likely access points to the operational area.



TBfree

TBfree is an OSPRI programme



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Important information

Warning signs will be placed at all main access points to the operational area. Everyone must follow the cautions on the signs. There's no health risk when using this area as long as you follow these instructions:

Do not handle any bait or allow children to wander unsupervised. Cereal baits containing 1080 are dyed green however for these operations the prefeed and toxic bait will be dyed green to support the kea mitigation trial work.

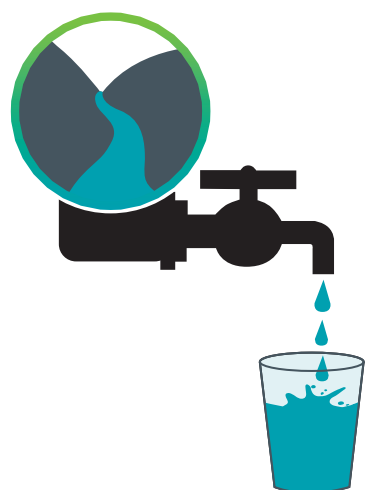
Do not hunt or take game from within a two-kilometre radius of the operational area for human or pet consumption. It is an offence to sell meat products that have been exposed to 1080. Hunting can resume approximately four months following the control work.

Please observe these rules whenever you see warning signs about the pesticide. These signs indicate that pesticide residues may still be present in the baits or carcasses. When the signs are officially removed, you can resume normal activities in the area.



Do not bring dogs into the area until the warning signs have been officially removed.

Dogs are particularly susceptible to 1080. They must not be allowed access into the treatment area whilst it is under caution.



Drinking water recommendations

1080 is water soluble and quickly dilutes to unmeasurable, non-toxic concentrations before it biodegrades. Tests on several thousand water samples taken after aerial 1080 operations over many years have shown no threat to water supplies.

There are several water catchments in Arthur's Pass. People taking water from these catchments may be concerned about their supply. Local health authorities apply strict conditions to aerial operations so that drinking water supplies are not affected, and mitigations can be put in place where necessary.



What to do if you suspect poisoning

Contact your local hospital or doctor, or **dial 111**

National Poisons Centre
0800 POISON (764 766)

If a domestic animal is poisoned, contact a local veterinarian.



Further information

Information and operational factsheets are available online at:

ospri.co.nz
doc.govt.nz/tiakina-nga-manu

OSPRI

Northern South Island office
PO Box 8674, Riccarton,
Christchurch 8440

P 03 363 3090
E vector.nsi@ospri.co.nz

Department of Conservation Rangiora office

32 River Road, Rangiora 7400
PO Box 349 Rangiora 7440

P 03 313 0820
E esienquiries@doc.govt.nz

For specific information about each operation, please contact the relevant contractor:

Otira/Taipo

Contractor: Vector Free Marlborough
P 0508 548 008 (free phone)
E communications@vectorfree.co.nz

Arthur's Pass West

Contractor: Vector Control Services
P 03 769 9327
E info@vcs.net.nz

For more information on controlling bovine TB and how and why 1080 is used in New Zealand, visit **1080facts.co.nz**