

Application for DOC permission to use VTAs: assessment report

Applicant name:	s 9(2)(a) Vector Control Services (VCS), Contractor
Operation name:	Rat Control, Arthurs Pass Area
Approving manager:	s 9(2)(a) Director Operations ESI
Assessor:	s 9(2)(a)
Date received:	28/3/2019
Overview:	<p>From section 1.1:</p> <p>It is proposed that the following pesticide use will be applied:</p> <ul style="list-style-type: none"> • Pesticide Use #140 1080 1.5g/kg Cereal Aerial <p>Permission is sought for toxic application starting on or after 01/05/19 and ending on or before 16/12/19. Non-toxic pre feed will be applied no earlier than 01/05/19</p> <p>Location (from section 1.2 and 1.6):</p> <p>Arthurs Pass 130,482ha</p> <p>The Arthurs Pass operational area is located between Arthurs Pass and Lake Sumner and is made of parts of Arthurs Pass National Park, Lake Sumner Forest Park and Otira-Kopara Forest conservation areas.</p> <p>Arthurs Pass is the closest town to the control area at approximately 8.2km. The smaller Bealey Spur and Otira residential areas are approximately 4km and 5km from the area respectively.</p> <p>See map(s)</p>
Applicant type:	DOC applicant—DOC SOPs will apply.
Delete the incorrect options.	DOC operation contracted to Vector Control Services (VCS).

Step 1 Confirm application is complete *Are all documents (listed below) provided?*

DOC Application form complete:
Are all sections of the DOC Application Form completed to a standard that you can assess them? Where are the information gaps? Is the operational information for treatment blocks clearly separated in each section of the application form where differences exist

The DOC application is completed to a standard that allows assessment.

The treatment area will be covered in one block.

The AEE section has been completed within the application.

<p><i>between them? Does the proposed application meet the grouping standard (see <u>Applying for DOC permission for external agencies</u> or <u>Operational planning for animal pest operations SOP</u> ? Where required, was the AEE section completed?</i></p>	
<p>Are all the proposed pesticide use(s) accepted for use? <i>Check the Status List category and if any compulsory restrictions apply. If any compulsory information needs apply, consider if the operation is designed to provide the required information.</i></p>	<p>Proposed pesticide use is accepted for use on the Status List:</p> <ul style="list-style-type: none"> • Pesticide Use #140, Sodium fluoroacetate 1.5g/kg Cereal pellet, Aerial (Pestex)
<p>Performance standards sheets <i>Is there a performance standard sheet for each pesticide uses proposed, and trapping if applicable?</i></p>	<p>Correct draft PS sheets were supplied within the application.</p>
<p>DOC permission map(s) (image file or files) <i>Does the map or maps meet the minimum standards (as stated in Appendix 2 of the DOC Application Form), including showing proposed warning sign locations and normal points of entry where warning signs must be A3?</i></p>	<p>An acceptable standard of maps were provided by the applicant.</p>
<p>DOC Pesticide Summary shapefiles (independent groups or individuals only) <i>Are the control methods clearly assigned to each treatment block? Do operational boundaries and warning sign locations match the DOC permission map(s)?</i></p>	<p>N/A DOC operation – already captured by op planner.</p>
<p>Consultation record including conditions of landowner consents <i>Was level of consultation adequate? All required owner/occupier consents obtained? Are conditions of consent evident in their application?</i></p>	<p>Communication record supplied by applicant is comprehensive and being continually updated (see DOC-5634236).</p> <p>Consultation context (from section 3.1):</p> <p>All adjoining landowners/occupiers adjacent to the proposed operational boundary have been consulted. The outcomes of these meetings have been recorded in the attached consultation report.</p> <p>Summary for Tangata Whenua and other individuals or groups consulted: The Department of Conservation has undertaken consultation on effects with the affected Ngai Tahu rūnanga.</p>

	<p>Pending OIA consultation [redacted] have affirmed their support for the operation. To date there has been no official reply from [redacted] Pending OIA consultation [redacted]</p> <p>See attached consultation record for a full summary</p>
<p>Public health permission/ proof of application</p> <p><i>Proof of application for public health permission is adequate to process the application, as long as the public health permission and associated application form is sighted prior to approval.</i></p>	<p>MOH application and consent supplied by applicant.</p> <p>Public Health Permission:</p> <p>Ref – 19/1186/CB/CHRPH</p>
<p>Other (specify, e.g. RMA consent)</p>	
<p>Your confirmation email and subsequent correspondence</p> <p><i>Include dates and nature of requests for further information.</i></p>	<p>Contacted applicant s 9(2)(a) [redacted] (VCS) and DOC site lead (s 9(2)(a) [redacted]) on 26/4/2019 to confirm application received and processing was underway. Requested the following info:</p> <ul style="list-style-type: none"> • Operational maps sent separately • Application for the public health consent (and the consent if granted) • Key Fact sheets used for notification • Compliance register • Any opposition/negative feedback so far from anybody re the operation? <p>Received email below from s 9(2)(a) [redacted] on 29/4/2019 incl Key Facts sheets:</p> <p>Hi s 9(2)(a) [redacted]</p> <p>I have attached a jpeg of the operational boundary.</p> <p>There is no requirement for ground laid baits.</p> <p>I have attached a copy of the MOH application and the permission.</p> <p>There are some hunters who are not happy about the inclusion of the RHA in the control area. There is some EDR planned for use, though it doesn't cover all of the RHA which has caused some concern. The adjoining landowners are accepting of the need for the control to be undertaken.</p>

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	<p>Emailed s 9(2)(a) 30/4/2019 and requested the following:</p> <p>Some changes need to be made in the application please:</p> <ul style="list-style-type: none"> • Methods section 4.1 – 0.3% lure not 0.03%, target pest should say rats not possums and needs to clarify that 3kg/ha sowing rate will only occur within the OFP block, 1.5kg/ha over the rest of the operational area • In AEE section - need to state that the DOC kea code of practice will be adhered to or appropriate exemptions from it will be sought from the department (exemption reqd for EDR use, sowing rate is 2kg/ha max, double lured cinnamon not allowed in pre-feed) I'm running these exemptions past Doc Technical advisors at the moment for their input • Can you include the map showing the different blocks (EDR, non EDR and OFP habitat) so the application aligns with the operational plan map. • Can you send through all maps separately as they are hard to make out within the document <p>Received all above from s 9(2)(a) on 2/5/2019.</p>
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Step 2 Capture treatment blocks in the Pesticide Application	
<p>Your publication of the proposed operation on the DOC Pesticide Summary (independent groups or individuals only) <i>Include date and note any issues.</i></p>	<p>N/A DOC operation – already captured.</p>
Step 3 Evaluate control method <i>Is the proposed method suited to the pest problem, treatment area and consultation outcomes?</i>	
<p>Your assessment of the control method <i>Include relevant points from the 'Choose your control method' part of Current Agreed Best Practice, where available.</i></p>	<p>The aerial application of 1080 cereal pellets has proven to be very effective in reducing rat numbers over large area when utilised by experienced operators using currently accepted best practice</p>

methods. This method is suitable for the proposed control area (approx. 130,482ha) and has been used successfully in the past around this area.

A 50% swath overlap should ensure sufficient coverage to achieve a high rat kill in OFP habitat.

This overlap brings the sowing rate in OFP habitat to 3kg/ha which is higher than the standard 1.5kg/ha recommended for BfoB rat operations and requires an exemption from the kea code of practice which allows 2kg/ha max in kea habitat (see TA advice below).

EDR (deer repellent) is to be used in part of the RHA within the treatment area - this also requires an exemption from the kea COP.

The proposed method should achieve the targets stated in section 2.2:

- To reduce the ship rat populations below 5% rat tracking to allow orange-fronted parakeet populations to recover.
- A viable orange-fronted parakeet population is present in the Hawdon, Andrews, Poulter and South Branch Hurunui Valley's at the conclusion of the 2019/ 2020 breeding season.
- Orange-fronted parakeet encounter rates (from standardised monitoring lines) are not less than 2017 / 2018
- Increase the success of Great Spotted Kiwi breeding by 2%

Section 4 of the application describes the proposed control methods and adequately justifies their use for this operation:

Aerially sown 1080 cereal pellets provide a highly cost-effective means of rat control. All rats will be exposed to lethal bait doses. This method is an appropriate technique considering the size of the area, the terrain, previous control history and the expected rat density after a beech seed mast.

Given the area to be covered, support from affected parties and the success of previous aerial operations in parts of this area, this method is expected to result in the objectives being met.

	Alternatives to provide the required level of rat control and subsequent secondary poisoning of mustelids and feral cats are unlikely to meet the outcome required.
Label directions <i>Check the product label to ensure that the proposed method detail complies with the label content.</i>	The methods comply with label directions.
Summary of any technical advice received on the proposed control methods.	See DOC TA advice re risk to kea below.
Summary of any Community relations and Pou Tairangahau advice received.	Nil – applicant/DOC have contacted local Iwi re the operation and received no negative feedback to date.
Step 4 Identify and assess risks and adverse effects <i>Are you satisfied that all risks and adverse effects have been identified?</i>	
Are there any gaps in the applicant's assessment of these (where the AEE section was supplied)?	AEE shows an awareness of possible risks and adverse effects to non-target species using the proposed methodology.
Relevant points from the DOC Pesticide Information Reviews	<p>There is potential for some individual native bird species to be poisoned area however, the risk at a population level is considered low. The benefit of effective pest control and subsequent protection of the native flora and fauna present in the area will outweigh this risk.</p> <p>1080 Review Fairweather, A.A.C.; Broome, K.G.; Fisher, P. 2018: Sodium Fluoroacetate Pesticide Information Review. Version 2018/2. Unpublished report docdm-25427, Department of Conservation, Hamilton, NZ. 113p.</p> <p><i>There have been numerous studies examining the effects of aerial poisoning on native non-target populations over the last 20 years. 21 species of native birds, particularly threatened species, have been monitored. None of the studies have identified population level mortality which threatened the viability of the species, although the only reliably calculated mortality rates are for kokako, kiwi, kaka, whio and fernbirds.</i></p> <p><i>In extreme cold and drought, 1080 residues could persist in baits for several months.</i></p>

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	<p><i>There is wide variation between species in their susceptibility to 1080 poisoning. Dogs are especially vulnerable and highly likely to die if they eat 1080 baits or scavenge animals killed by 1080.</i></p> <p><i>1080 is considered to have medium humaneness for possums, however there has been little formal research into the humaneness of 1080 on other target species. Most deaths of pest species occur 8 – 48 hours after ingestion of a lethal dose. The majority of pest control operations using 1080 have target pest kills of greater than 80%.</i></p>
<p>Summary of any technical or community relations advice received</p>	<p>See technical advice on risk to native fauna in step 5 below.</p>
<p>Other resources consulted (<i>specify</i>)</p>	<p>Method Best practice for Battle for our Birds Aerial 1080 baiting Version 1.5 July 2018</p> <p>Kea survival during aerial poisoning for rat and possum control. Joshua R Kemp, Corey C Mosen, Graeme P Elliott, Christine M Hunter and Paul van Klink, June 05, 2018</p> <p>Code of Practice for Aerial 1080 in Kea Habitat (DOC-2612859)</p>
<p>Your assessment of technical risks and adverse effects (<i>e.g. the pesticide use, use pattern, site factors</i>)</p>	<p>Proposed methods comply with Current Method Best Practice for aerial baiting and are suitable for the site.</p> <p>A TAG group meeting/team process was undertaken in August 2018 in Rangiora to answer questions around operational methodology and timing. The recommendations documented (DOC-5543648) are a consensus of opinion of the group and have been followed.</p> <p>Risk to non-target species is considered low and all native plant and animal species will be advantaged by a reduction in rodent numbers (and the associated by-kill of stoats and possums).</p> <p>Unfenced boundaries bordering the operational area have been identified and mitigation measures</p>

	<p>discussed with landowners re sowing buffers and stock removal.</p> <p>There are 32 public huts, 3 staff huts and 2 shelters within the operational area as well as kilometres of publicly accessible track. Warning signs will be erected as per the sign register in the Pesticides App at least the day before toxic bait is laid.</p> <p>Well used tracks will be sown and cleared. Low use and/or poorly defined routes the Department has identified will not be cleared due to the time of year the operation is planned.</p> <p>Huts will have an 80m buffer, private land will have a 100m buffer. Kidson Lodge and Paterson Lodge are no-fly zones.</p>
<p>Your assessment of non-technical risks (e.g. high public use, consultation outcomes)</p>	<p>The 'ARTHURS PASS AERIAL 2019 SUMMARY OF CONSULTATION ON EFFECTS' document within the application provides risk assessment and mitigation identified during consultation.</p> <p>Flight paths from the helicopter loading zones with loaded buckets to the operational area will be over a mixture DOC administered land and private farmland with owner consent. No stock will be in flight corridors.</p> <p>A security firm has been employed in case of protest action around loading sites.</p> <p>Water intakes have been identified and mapped.</p> <p>Dogs are not permitted in the operational area.</p> <p>There is some hunter opposition to aerial 1080 in the RHA block, EDR is being used in part of this block.</p> <p>From section 4.2: Risks to humans from bait handling and distribution will be low, through compliance with stringent safety and performance standards. Stringent conditions to protect public health will be imposed by the Medical Officer of Health and adhered to. Physical damage to the environment will be minimal.</p>

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	<p>Adverse effects on non-target species can be managed through performance standards. Effects of aerial control on adjacent land occupiers and land use will be eliminated or mitigated through careful boundary management and communication.</p>
<p>Step 5 Calculate estimated caution period and evaluate if risks and adverse effects are at an acceptable level <i>Will risks be managed adequately with the performance standards proposed for this operation? Include dates and outcomes of any discussion with the applicant.</i></p>	
<p>Estimated caution period for all the pesticide use(s) <i>Does this differ from the recommended caution period in the Caution period calculator?</i></p>	<p>Pesticide Use #140 - Caution periods set at 9 months after bait application as recommended in the CP calculator (dry site 'No' (>600mm rainfall pa) and mean temp in the 6 months following the operation <10 degrees 'Yes'), bait and carcass monitoring is required for 1080 aerial pellets.</p>
<p>How well does the proposed operation manage potential risks to native fauna? <i>(i.e. as proposed in the Application form or performance standards)</i></p>	<p>Proposed control methods and performance standards are adequate to manage risk to native fauna.</p> <p>The AEE contains a comprehensive list of native species that may be present in the control area.</p> <p>From AEE section: It is possible deaths could occur in some bird species though population recovery is normally within one breeding season. The relatively low sowing rate of 3kg/ha, coupled with the 6 gram RS5 pellet size will effectively target rats.</p> <p>The disturbance of "normal" predator-prey relationships between the introduced and native fauna caused by the aerial poisoning of rats and possums with 1080 is not clearly understood in terms of cause and effect, but the overall net effect on the ecosystem is one of profound benefit due to the successful control of rats, possums and the subsequent control of mustelids.</p> <p>Consulted s 9(2)(a) Technical Advisor Threats re kea Code of Practice (COP) issues:</p> <p>Exemption required because the following proposed methods are not considered acceptable in kea habitat in the current COP:</p> <ul style="list-style-type: none"> • EDR use • 3kg/ha sowing rate (as proposed in the in OFF block)

	<p>Email advice from s 9(2)(a) 1/5/2019:</p> <p>Given the location of this operation we have to assume some kea deaths are likely. However the size and timing of the operation means that stoats are likely to be effectively controlled over a large area and prolonged period and therefore there will be a net benefit to kea populations through greatly improved nesting success. Three blocks within the operational boundaries do not meet Performance Standard 1 (the use of deer repellent in the (name) RHA or Performance Standard 3 (toxic bait sowing rate >2kg/ha for 6g baits in the orange fronted parakeet management areas) in the Code of Practice for Aerial 1080 in kea habitat.</p> <p>As the deer repellent block is relatively small and in the part of the block most distant from Arthurs Pass, we expect that few if any kea in this block will investigate bait so any change to bait palatability due to the deer repellent is unlikely to lead to a higher risk of kea deaths. While this is far from certain, we recommend the required exemption is granted for this block.</p> <p>The increased sowing rate in the two OFP blocks is likely to increase risk to kea. However it is recognised that these sites are being managed as the bulk of remaining habitat of the Nationally Critical parakeet. We recommend that the required exemption is granted for these blocks provided that the approving manager is satisfied that the increased sowing rate in these blocks will provide greater benefit to OFP than if sown at <2kg/ha.</p> <p>Nic Gorman</p> <p>An exemption to the kea COP is requested based on this advice.</p>
<p>How well are other potential risks managed? (i.e. as proposed in the Application form or performance standards)</p>	<p>Applicant is experienced with this methodology and local environment so potential risks are well managed.</p> <p>The DOC compliance register records that all necessary planning and operational tasks have been done. This will be used for a readiness check by the DOC site lead and/or delegated DOC staff to ensure all conditions have been met.</p>

	<p>Public Health Consent contains conditions to mitigate risk to human health.</p> <p>Public notices, the DOC pesticide summary and warning signs will inform the public of the operation.</p>
Are you satisfied with the proposed warning sign locations and normal points of entry?	Operational maps with all warning signs marked have been supplied and are adequate.
Summary of any technical or community relations advice received	s 9(2)(a) [redacted] DOC site lead consulted re appropriate warning sign locations. Sign locations will be GPS'd and documented in a sign register (sign locations are also in the pesticide app).
Public health permission, including application form sighted (if not provided at time of application) <i>Consider if public health permission has any impact on DOC permission conditions.</i>	<p>PHU application and consent supplied by applicant.</p> <p>PHU consent contains conditions which must be adhered to relating to notification, bait exclusion zones, water supply mitigation, track clearances, school holiday dates, public notices.</p>
Other resources consulted (<i>specify</i>)	
Which additional performance standards should be applied and why? <i>Consider impacts of conditions from other consents. Consider if the additional performance standards specific and auditable, and can be justified.</i>	Nil – standard conditions are sufficient.
Step 6 Make a recommendation <i>Should the application be approved or declined?</i>	
What key points should the approving manager have drawn to their attention?	<p>The operation, through a reduction in rodent numbers (and by-kill of stoat and possum) should achieve the desired results.</p> <p>DDG approval granted to use 1080 to target mice in certain BfoB operations:</p> <p> Spnog01190503114 60.pdf</p> <p>TAG discussion and advice – recent monitoring (April) shows rodents are increasing in all monitoring areas and operation should go ahead in next available weather window (see email DOC-5932026)</p>

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	<p>Consultation record shows a generally good level of support for the operation to date and is being continually updated as necessary.</p> <p>A readiness check (via compliance register) is being carried out by s 9(2)(a) and s 9(2) s 9(2)(a) to ensure all required conditions are met by the contractor prior to the operation going ahead.</p>
<p>Is approval or decline recommended? If declined, summarise reasons. If approved, is a readiness check recommended (DOC operations only – see Pre-Operational Step 7 of the <u>Operational planning for animal pest operations SOP</u>)?</p>	Approval recommended
Step 7 Prepare documents and advise manager	
<p>For recommended approval: Attached correct draft letter of permission, DOC Performance Standards sheet(s) and map(s) of operational boundaries.</p>	<p>Attached:</p> <ul style="list-style-type: none"> Letter including maps (DOC-5922452) <p>PS sheets</p> <ul style="list-style-type: none"> PU#140 (DOC-5921746)
<p>For recommended decline: Attach draft letter of decline including a summary of reasons.</p>	

Record of permission decisions that differ from the assessor recommendation

Record of permission decision
Only complete this section where the manager has made a decision that differs from the assessor's recommendation. For example, where the manager decides on different operational timing or warning sign locations or rejects a recommendation to approve or decline the application.
Where required, complete this in Section 7 (Approving or declining DOC permissions), Step 2. Record the difference between the decision and recommendation and summarise the reason(s) for the decision.

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