



Date: 16 August 2019

To: Jacquelyn Shannon, Acting Deputy Director-General Operations

CC: Martin Kessick, Deputy Director-General Biodiversity

From: Hilary Aikman, Director National Operations, s 9(2)(a), 9(2)(g)(ii) Acting Director National Operations

Subject: CLINTON/EGLINTON – POSSUM, RAT AND STOAT CONTROL OPERATION 2019

Purpose

1. To consider the granting of a revised permission for undertaking an aerial 1080 drop and pindone pellets in bait stations in Clinton/Eglinton, Fiordland National Park for the control of possums, rats and stoats.

Background

2. As a result of reviewing Permission 5963468 granted to an individual in EcoFX Ltd on 18 June 2019, it was identified there were inaccuracies in that permission document and that a new permission should be considered.
3. Although the information provided in the application and assessment was sufficient to grant the permission, it was noted that the permission should have been granted to EcoFX Ltd and that further authorisation, including under the Wildlife Act 1953, should be stated. There was also insufficient documentation of the procedural decisions.
4. Refinements have also been made to the operational area to include two areas of stewardship land that were omitted from the application, flexibility to use Pestex as well as Orillion 1080 baits is to be provided, and a change of sowing rate for the 1080 baits from 1.5kg/ha to 2kg/ha.
5. As this operation has not yet commenced there is an opportunity for you to reconsider the permission and, if you consider it appropriate, to revoke the present permission and grant a new permission.
6. It was considered appropriate to request you as the Acting Deputy Director-General to make the decision as a new decision-maker, as opposed to referring the matter back to the Director Operations who made the initial decision.
7. Attached is the application and assessment report which is still valid for this reconsideration. It is noted that the operation could occur shortly and so there is some urgency in undertaking this reconsideration.

Proposed Changes

Applicant

8. The Applicant is EcoFX Ltd and the permission should be granted in its name (and not its Manager). EcoFX Ltd will hold the permission, which will cover its staff and sub-contractors.

Operational area

9. The operational area has been amended to 35,715 ha approximately, to include approximately 190 ha of the Snowdon Forest Conservation Area and approximately 1,200 ha of the Mavora Lakes Conservation Area. These areas had been omitted from the application.

Type of 1080 baits to be used

10. To provide flexibility for the brand of 1080 toxic baits that may be used for this operation, provision is included for the use of Pestex (#140) 1.5g/kg toxic 1080 baits. These baits have the same toxicity and are both registered for rodent and possum control.

Application rate of 1080 toxic baits

11. The proposed sowing rate for toxic feed has been revised from 1.5kg/ha to 2kg/ha following the monitoring of recent operations.
12. This year's unprecedented 'mega mast' has provided abundant food for rats, making predator control more challenging. The monitoring results for the three recently completed aerial 1080 operations show nearly 20% rat survival, significantly more than the anticipated level of less than 5%. The exceptional amount of seed from the South Island's biggest beech mast in 40 years means rats don't need to travel far from their home ranges for food. Gaps in bait coverage have left pockets of rodents that wouldn't travel far enough to be exposed to the bait.
13. It is vital that this operation is successful in order to avoid losing local populations of vulnerable native species such as mohua, whio, and long and short tailed bats, which are vulnerable to rat plagues.
14. The Department's technical advisory team has revised the bait application rate for Clinton/Eglinton and some other operations to ensure more even bait spread. This is at an increased rate of 2kg per hectare, up from the usual 1.5kg. This adjustment aims for complete bait coverage to reach all rodents, and will be applied by sowing baits in overlapping swathes, so that the entire area is sown with baits twice and there is no possibility of gaps. By sowing twice and achieving the same kill rate for each individual swath, the operation is expected to achieve at least a 94% mortality for rats.
15. The proposed sowing rate at 2kg/ha exceeds the guidance in the current Method Best Practice for BFOB aerial 1080 baiting which has specified 1.5kg/ha as current guidance. A sowing rate of 2kg/ha has however been used in many past operations. The operation will continue to meet other best practice guidance and will comply with the Code of Conduct for aerial 1080 operations in Kea habitat.

Hazardous Substances and New Organisms Act 1986

16. Under the Hazardous Substances and New Organisms Act 1986 (HSNO Act), the Environmental Protection Authority (the Authority) has approved the use of 1080 and pindone but has imposed a requirement that:

No person may apply or otherwise use this substance on land administered or managed by the Department of Conservation unless the person first obtains a permission from the Authority.

17. The Authority has delegated its powers to the chief executive of the Authority, who has in turn delegated his powers under section 95A of the HSNO Act to grant permissions for the use of such substances on land administered or managed by DOC to named positions within DOC, including to you as the Deputy Director-General, Operations.
18. In considering an application, in accordance with section 95A(3) you must consider:
 - (a) the adverse effects involved in the use or uses of the substance to which the application relates; and
 - (b) the conditions (if any) that it thinks should be imposed as part of the permission.
19. The attached assessment sets out the consideration of the adverse effects and conditions. You are able to rely on that assessment, noting that the use of 1080 and pindone has been approved and so the focus of the consideration is the use of these approved substances on land administered or managed by DOC.
20. As a decision maker under the HSNO Act you also need to consider the purpose and principles of the HSNO Act, again recognising that the Authority has approved these substances generally. The purpose of HSNO Act is to protect the environment, and the health and safety of people and communities, by preventing or managing the adverse effects of hazardous substances.
21. This purpose is supported by the principles in section 5, which are to be recognised and provided for, being:
 - (a) the safeguarding of the life-supporting capacity of air, water, soil, and ecosystems:
 - (b) the maintenance and enhancement of the capacity of people and communities to provide for their own economic, social, and cultural well-being and for the reasonably foreseeable needs of future generations.
22. It is also necessary to take into account the precautionary principle (section 7), the principles of the Treaty of Waitangi (section 8) and the matters in section 6, being:
 - (a) the sustainability of all native and valued introduced flora and fauna:
 - (b) the intrinsic value of ecosystems:
 - (c) public health:
 - (d) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, valued flora and fauna, and other taonga:
 - (e) the economic and related benefits and costs of using a particular hazardous substance or new organism:

- (f) New Zealand's international obligations.
23. The use of 1080 and pindone in this case is for the purpose of killing possums, rats and stoats to control these populations for the protection of indigenous fauna and flora. Although it is recognised that the use of hazardous substances is not ideal, it is the best and most cost-effective option available for large scale pest control operations. The control of possums, rats and stoats ensures the sustainability of indigenous species (flora and fauna) and protects taonga. The biodegradability of 1080 means that it has limited long term adverse effects on ecosystems and human health and safety is protected. Measures in terms of human health issues for both substances are addressed through the public health permission.
 24. The assessment undertaken confirms that the purpose and principles of the HSNO Act have been considered, including ensuring the principles of the Treaty have been given effect to through consultation. The conditions imposed on this operation support a precautionary approach.
 25. The assessment confirms that the application is in accordance with the purpose and principles of the HSNO Act and that the adverse effects have been considered and conditions imposed. The granting of a permission is recommended.

Wildlife Act 1953

26. Possums, rats and stoats will be controlled through this operation. Unfortunately, as a result of the pest control operations it is possible that protected wildlife may be killed even though the best practice methods are used to avoid this situation – including controlling the colour, smell, size and distribution of bait so that it is not attractive to protected wildlife and using bait stations.
27. The purpose of the Wildlife Act is the protection and control of wildlife. Although this may apply to individual wildlife in some cases, the Act is focussed at a species level. The scientific research shows that, although there is some risk to individual birds as a result of a 1080 drop or use of any vertebrate pesticides, the resulting improvement in successful breeding means the population numbers increase and thus the species is protected.
28. The change from a 1.5kg/ha to 2kg/ha sowing rate for the 1080 toxic baits was recommended by the BFOB TAG to increase the effectiveness of the predator control. You are able to rely on the information in the Application and the Assessment Report which conclude that the risks are low.
29. The BFOB Technical Advisory Group considered that any additional risk of by-kill to non-target species is acceptable in light of the significant potential benefit of increasing the sowing rate, compared to the known risk of an unsuccessful operation should 1.5kg/ha sowing rate be used instead.
30. In these circumstances it is recommended that an authorisation be granted by the Director-General under section 53 of the Wildlife Act to kill absolutely protected wildlife (to cover off this possibility) as a result of this operation because it will, in the longer term, aid the protection of wildlife.

31. Section 54 enables the Director-General to authorise the killing of animals that he is satisfied are causing damage to other wildlife or land. Possums, rats and stoats cause damage to flora and indigenous wildlife (including bats, birds and their eggs, and food sources). You can be satisfied that these pests are causing damage and that killing them is for the benefit of protected wildlife. Any other unprotected wildlife which may die as a result of this operation do not require a specific authorisation under the Wildlife Act as they are not sought to be controlled through this operation. It is recommended that a section 54 authorisation, therefore, be granted for the killing of possums, rats and stoats as the "nuisance" animals.

National Parks Act 1980

32. The operation area includes Fiordland National Park. Authorisation is required for activities within a national park. The purpose of this activity is to kill pests, although the death of some indigenous animals is possible. In this regard section 4(2)(b) of the Act provides:

... national parks shall be so administered and maintained under the provisions of this Act that— ...

except where the Authority otherwise determines, the native plants and animals of the parks shall as far as possible be preserved and the introduced plants and animals shall as far as possible be exterminated:

33. There is no specific power in the Act to authorise the killing of introduced pests. Section 51A of the National Parks Act provides that the Minister may authorise a person to do any thing that the Minister considers appropriate for the proper and beneficial management, administration and control of a park. The thing authorised cannot be inconsistent with the management plan. Section 5(2) provides that no person shall, without the prior written consent of the Minister, kill any indigenous animal found within a national park. Written consent can be given if consistent with a management plan.
34. The Fiordland National Park Management Plan 2007 in Section 4.2 under the heading "Impact of Introduced Animals and Plants" states:
- As New Zealand flora is susceptible to browsing mammals, its fauna is just as susceptible to introduced animals. Many habitats have been modified by the animals mentioned above. Mustelids, rodents and cats have also significantly affected fauna in Fiordland through predation. The recent near extinction of mohua (yellowhead) from the Eglinton Valley is evidence of this. Many of these animals were introduced into New Zealand in the early 1900s. Significant efforts are now being made to control such pests in specified areas of Fiordland National Park.
35. In Section 4.3 "Preservation of Indigenous Species and Habitats" the significance of this Clinton/Eglinton area is recognised:

Due to the vast size of Fiordland National Park it is not possible to directly manage all the indigenous species and habitats of Fiordland National Park. There are, however, some places and some species where particular attention is focussed. These biodiversity hotspots include a number of offshore islands (such

as Te Kakahu (Chalky Island), Solander, Breaksea, Coal, Secretary and Resolution Islands); the Eglinton Valley; the Clinton and Arthur Valleys; and the Murchison Mountains.

36. In Section 4.5 Introduced Animals, the following comments are made:

Due to the widespread nature of possums in Fiordland National Park, prioritising key areas for action is necessary. Action is taken at sites to protect ecosystems of the highest priority.

...

Control of other introduced animals such as stoats and rats is undertaken in accordance with the National Parks Act 1980 which states, "the introduced plants and animals shall as far as possible be exterminated". Stoat control over the entire Fiordland National Park is not practicable with known control methods. Trapping or other suitable methods of control will be undertaken when necessary in conjunction with species or habitat preservation activity. Research is focussing on increasing stoat control effectiveness while reducing per hectare effort. This will enable the control of stoats on large islands and mainland areas. A similar approach will be taken for other mustelids, wild cats, rats and mice.

...

The General Policy for National Parks 2005 further defines the direction for the management of introduced animals. It reaffirms that eradication, where practicable, containment and reducing the range of established introduced animals should be a priority. Control of species considered widespread is to maintain the general welfare of national park indigenous species, habitats and ecosystems, or to maintain scenic and landform values as a priority where necessary. The eradication of new incursions and prevention of those animals not present is also a priority.

...

Objective 2. To reduce and control introduced animal numbers by all available means to a level that allows for the regeneration of browsed indigenous flora and the recovery of predated fauna. Initial emphasis will be placed on identified priority areas and species.

...

Objective 7. Priorities for possum control in Fiordland National Park are as follows:

- a) Continue the current emphasis on possum control in the Pembroke/Kaipō/Martins Bay area, Eglinton Valley, Clinton/Arthur Valley, and Cleddau Valley areas, and sites in Waitutu Forest so as to protect the high natural values within those places;
- b) Within other areas of Fiordland National Park in the following circumstances:
 - i) To prevent significant damage to indigenous vegetation;
 - ii) To prevent the spread of possums;
 - iii) To protect the habitat of threatened species; and
- iv) To avoid the spread of diseased bovine tuberculosis animals into Fiordland National Park.
- c) Possum control should be undertaken in order of the priorities listed once a review (see Implementation 1) has taken place;
- d) Operational plans should be prepared for each operation as needs arise;
- e) Encouraging the control of possums on lands adjacent to Fiordland National Park; and
- f) Maintaining liaison and co-ordinating efforts with other animal pest control agencies.

...

Objective 15. Control and, where practicable, eradicate mustelids. Continue the current focus of stoat control and research in the Eglinton Valley, Murchison Mountains, islands in Dusky Sound and Doubtful Sound / Patea and the Clinton/Arthur catchments.

Objective 16. Maintain rodent-free islands and control or, where practicable, eradicate rodents from Fiordland National Park. Currently there are no rodent control programmes in Fiordland National Park. Future places where control programmes may be considered include the Eglinton, Clinton, Arthur and Cleddau Valleys for the purpose of protecting bat and mohua populations.

37. The Management Plan is supported by the General Policy for National Parks, in particular Policy 4.1 (which recognises the importance of indigenous species and that those within national parks should be managed to prevent their loss or decline and to restore genetic integrity and diversity) and Policy 4.3 relating to management of threats to indigenous species. Policy 4.3(d) provides, for example:
- iii) eradicating, where practicable, and containing and reducing the range of established introduced plants and animals; and
 - iv) controlling widespread introduced species where necessary to maintain the general welfare of national park indigenous species, habitats and ecosystems or to maintain scenic and landform values.
38. Although the death of an individual native animal is not desired, both the Act and the Fiordland National Park Management Plan (supported by General Policy) recognise the importance of controlling introduced animals. The application is in accordance with the purpose of the Act, as identified through the principles to be applied to national parks in sections 4 and 5 of the Act, and the management plan to provide for the eradication or control of pest species which have a significant impact on the preservation of indigenous animals.
39. It is recommended that consent be granted under sections 5 and 51A of the National Parks Act for the possible killing of native animals and the killing of introduced animals, particularly possums, rats and stoats.

Conservation Act 1987

40. Authorisation under the Conservation Act is concerned with conservation areas. In this operation area there are two stewardship areas held under section 25 of the Conservation Act. Section 25 provides that every stewardship area shall so be managed that its natural and historic resources are protected. "Natural resources" includes animals of all kinds. Protection covers not only maintaining, but also enhancing.
41. This operation is in accordance with management for conservation purposes and is also in accordance with the focus on the protection of natural resources (animals) for conservation areas. The purpose of killing pests is aimed at having a positive effect for indigenous species, even if individual indigenous animals are killed. Although there is clearly concern about the deaths of individual birds as a result of this operation, from a species perspective the use of 1080 and pindone has been shown to provide protection.

42. Under section 38 of the Conservation Act the Director-General may, if it is in accordance with a management plan (if any) and having had regard to the safety of the public, issue permits for hunting. Hunting for the purposes of this section includes the use of poison.
43. There is no relevant conservation management plan for the conservation area covered by this application. Section 4.2 of the Conservation General Policy, however, identifies the need to manage pest threats and this is carried through to the Southland Murihiku Conservation Management Strategy 2016 which recognises as an objective:

1.5.1.7 Contain or control pest plants and animals and wild animals, including those identified in Appendix 6, through a targeted strategic and sustainable multi-threat management approach.

Appendix 6 includes possums, rats and stoats.

44. Although there is no relevant management plan, the proposed operation would be consistent with the Conservation Act, the Conservation General Policy and the relevant Conservation Management Strategy.
45. Public safety has been provided for. Consultation with user groups has taken place. A Public Health Permission with appropriate conditions has also been obtained, which although focussed on public health, also imposes controls which support public safety.
46. While section 38 does not cover fresh water fish, it is noted that there is no evidence that the killing of fish needs to be authorised. Unlike mammals, fish such as trout and eels are not at significant risk from 1080 during pest control operations. Independent studies stretching back to the late 1970's indicate there is no detectable impact of 1080 on trout or the freshwater invertebrates they feed on such as koura, caddisflies, midges and mayflies. Recent published studies by NIWA and Landcare Research scientists also show that while eels and freshwater crayfish which were deliberately fed 1080 pellets and carcasses of animals killed with 1080 absorbed low concentrations of the toxin, the levels absorbed posed little risk to humans. These findings are not unexpected. Even if 1080 entered water directly during a pest control operation, fish would not be affected as 1080 is rapidly diluted to low concentrations in water and breaks down into harmless substances. Studies on pindone also show there is little concern if it enters waterways.

Consultation

47. The Department complies with section 4 of the Conservation Act across all of the Acts it administers. Ensuring that the principles of the Treaty of Waitangi are given effect to requires consultation with the Treaty partner, which has occurred.
48. The requirements for consultation imposed by the Authority under the HSNO Act are extensive. That consultation covers the issues of killing pests and protected wildlife, as well as the use of 1080 and pindone, which is the focus of the approvals under the conservation legislation. There is confidence that the proposed operation and the consultation undertaken gives effect to the principles of the Treaty.

Conclusion

49. The application is consistent with the above provisions and the proposed permission reflects this. The proposed permission document is attached for your consideration.

Recommendations

It is recommended that you:

1. Consider the application, assessment report and this memo;
 Agree / Disagree
2. Note that the consultation undertaken by the applicant and the Department is sufficient to meet the section 4 Conservation Act obligations;
 Agree / Disagree
3. Agree, under sub-delegation from the chief executive of the Environmental Protection Authority, to revoke permission 5963468 to enable the inaccuracies within that document to be corrected through a replacement permission;
 Agree / Disagree
4. Agree to grant a permission in the name of EcoFX Ltd, which will cover staff and contractors;
 Agree / Disagree
5. Agree that the proposed permission and conditions consider the adverse effects of the use of sodium fluoroacetate (1080) and pindone on DOC managed or administered land and that granting the permission is in accordance with the purpose of the HSNO Act, recognising the life-supporting capacity of ecosystems and the well-being of people and communities and taking into account the principles of that Act;
 Agree / Disagree
6. Agree, under sub-delegation from the chief executive of the Environmental Protection Authority, to grant permission under s 95A of the Hazardous Substances and New Organisms Act for the use of 1080 and pindone on the land managed or administered by DOC in the operation area;
 Agree / Disagree
7. Agree you are satisfied that, in the area of the operation, possums, rats and stoats are causing damage to wildlife and land so killing of these pests in accordance with the application will meet the purpose of the Wildlife Act;
 Agree / Disagree
8. Agree, under delegation from the Director-General of Conservation, to grant an authorisation under section 54 of the Wildlife Act for the killing of possums, rats and stoats in the operation area in accordance with the methods in the application;
 Agree / Disagree

9. Agree that, for the purpose of providing greater protection for protected indigenous species, individual protected wildlife may be killed as a result of this operation even though the conditions on the permission are complied with, and that this is in accordance with the purpose of the Wildlife Act;

Agree / Disagree

10. Agree, under delegation from the Director-General of Conservation, to grant an authorisation under section 53 of the Wildlife Act for the killing of protected indigenous wildlife for the purpose of greater protection of indigenous wildlife in the operation area in accordance with the methods in the application;

Agree / Disagree

11. Agree, in relation to the area of operation within the Fiordland National Park, that this operation is in accordance with the purpose of the National Parks Act and is consistent with the Fiordland National Park Management Plan;

Agree / Disagree

12. Agree, in relation to the area of operation within the Fiordland National Park and under delegated authority from the Minister of Conservation, to authorise under section 51A of the National Parks Act the killing of non-indigenous animals (particularly possums, rats and stoats);

Agree / Disagree

13. Agree, in relation to the area of operation within the Fiordland National Park and under delegated authority from the Minister of Conservation, to authorise under section 5 of the National Parks Act the possible killing of indigenous animals as part of this pest control operation;

Agree / Disagree

14. Agree, in relation to the area of operation that is stewardship area that the hunting of animals by the use of poison is in accordance with the purpose of the Conservation Act, that no conservation management plan applies (but the operation is in accordance with the relevant conservation management strategy and conservation general policy), and that public safety has been provided for;

Agree / Disagree

15. Agree, in relation to the area of operation that is stewardship area and under delegated authority from the Director-General, to grant a permit under section 38 of the Conservation Act for hunting animals by the use of poison;

Agree / Disagree

16. If you have agreed to the above, sign the attached Permission.

s 9(2)(a)
[Redacted Signature]

16 Aug 2019

Hilary Aikman, Director National Operations / s 9(2)(a), 9(2)(g)(ii) Acting Director National Operations

Decision made by me on 16 August 2019

s 9(2)(a)
[Redacted Signature]

Jacquelyn Shannon, Acting Deputy Director-General Operations

Released under the Official Information Act