



**Date:** 9 October 2019

**To:** Hilary Aikman, Director National Operations

**From:** s 9(2)(a), 9(2)(g)(ii) Landscapes Manager, Predator Free 2050

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**Subject: HOLLYFORD – RAT AND POSSUM CONTROL OPERATION**

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### Purpose

1. To consider the granting of a permission for undertaking a sodium fluoroacetate (1080) control operation (aerial and hand laid) to kill rats, with a by-kill of stoats, and possums in the Hollyford area, including parts of:
  - Pyke Forest Conservation Area; and
  - Fiordland National Park.Private land is also included, but it is only the Wildlife Act authorisations which apply to this land. The relevant owners have given their consent for the pest control operation.
2. Department staff have prepared an assessment report based on the Standard Operating Procedure (SOP) approved by the Environmental Protection Authority (the Authority) for consideration of the use of vertebrate pesticides. This, along with the application, are attached for your consideration.
3. As decision maker you are required to consider matters under the Hazardous Substances and New Organisms Act 1996 (HSNO Act) on behalf of the Authority and the relevant conservation legislation. This paper sets out the statutory considerations under the HSNO Act and the conservation legislation so that, taken together, you can decide whether to grant permission for this pest control operation.

### Applicant

4. The Applicant is EcoFX Ltd, which is undertaking work for DOC. Any permission should be granted in the name of EcoFX Ltd and cover staff and contractors.

### Hazardous Substances and New Organisms Act 1996

5. Under the HSNO Act, the Authority has approved the use of sodium fluoroacetate (1080) 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.

6. 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 Director, Operations.

7. 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 you think should be imposed as part of the permission.
8. 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 has been approved and so the focus of the consideration is the use of this approved substance on land administered or managed by DOC.
9. 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 this substance 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.
10. 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.
11. It is also necessary to take into account the precautionary approach (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.
12. The use of 1080 in this case is for the purpose of killing rats, which will have a by-kill impact on stoats, and possums. The death of these pests will protect and enhance the populations of native species present in the treatment area including rock wren, kea, yellow crowned parakeet, whio, long-tailed bat. Other forest birds and native vegetation will also benefit from the outcome of this operation. 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

rats (and thus stoats) along with possums ensures the sustainability of indigenous species and protects taonga. Measures in terms of human health issues are addressed through the public health permission.

13. 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.
14. The conditions imposed on this operation support a precautionary approach. 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**

15. Rats (and stoats) and possums 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 conditions are applied.
16. 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 use of any vertebrate pesticides, the resulting improvement in successful breeding means the population numbers increase and thus the species is protected.
17. 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.
18. Section 54 enables the Director-General to authorise the killing of animals that he is satisfied are causing damage to other wildlife. Rats, possums and stoats cause damage to indigenous wildlife. You can be satisfied that killing rats (and thus stoats) and possums 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 these pests.

### **National Parks Act 1980**

19. The operation area includes Fiordland National Park. Authorisation is required for activities within a national park. The purpose of this activity is to kill rats and possums, although the death of some other pests and 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:

20. 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.

*Fiordland National Park Management Plan, 2007 (FNPMP)*

21. The FNPMP in Section 4.2.3 under the heading Indigenous Fauna, (page 49) notes:

The drastic decline of some indigenous birds is attributed principally to rats and stoats which are found throughout Fiordland National Park (except on several islands). Ground birds are especially at risk from predation. ...

Very little of Fiordland National Park has been surveyed thoroughly for insects; and little is known overall about their conservation status. Rats, mice and stoats prey on some insects, therefore any predator control is likely to benefit insects and ecosystems generally.

22. Section 4.2 4 of the FNPMP, under the heading "Impact of Introduced Animals and Plants" states (page 51):

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.

23. In Section 4.5 Introduced Animals, the following comments are made (pages 59 – 60):

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.



24. Within Section 4.5 is the following Objective and Implementation provisions

...

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.

...

Implementation 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.

Implementation 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.

25. 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.

26. Although the death of an individual native animal is not desired, both the Act and the 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.

27. 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 rats and possums.

### **Te Wāhipounamu- South West New Zealand World Heritage Area**

28. The operation area including that within the National Park is included within Te Wāhipounamu - South West New Zealand World Heritage Area. Part three of the FNPMP is dedicated to recognising this classification.

#### **3.1 Te Wāhipounamu - South West New Zealand World Heritage Area**

Fiordland National Park is part of the Te Wāhipounamu – South West New Zealand World Heritage Area along with Westland/Tai Poutini National Park,

Aoraki/Mt Cook National Park, Mt Aspiring National Park and other surrounding conservation lands ....

The Te Wāhipounamu - *South West New Zealand* World Heritage Area is one of the world's 400 or so special natural and cultural sites, as recognised by the United Nations Educational, Scientific and Cultural Organisation (UNESCO). The World Heritage Area consists of 2.6 million hectares of protected lands in the West Coast, Canterbury, Otago and Southland.

World heritage areas are designated under the World Heritage Convention because of their outstanding universal value. World heritage status does not affect the underlying protective status for which the land is held under New Zealand law; rather it places an obligation on the host nation to "take appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage" (World Heritage Convention, 1972).

Its value can best be summarised from a quotation out of the nomination document which states:

*"Few areas of the world have such a concentration of natural scenic splendour as the South-West. It contains many of the natural features which contribute to New Zealand's international reputation for superlative landscapes: its highest mountains, longest glaciers, tallest forests, wildest rivers and gorges, most rugged coastlines and deepest fiords and lakes. It even has an extinct volcano in Solander Island.*

*From the vast wilderness of Fiordland in the south to the spectacular up thrust of the Southern Alps in the North, the South-West landscapes are of world class for the sheer excellence of their scenic beauty. It is an area of magnificent primeval vistas: snow-capped mountains, glaciers, forests, tussock grasslands, lakes, rivers, wetlands and over 1000km of wilderness coastline.*

*Only traces of human influence are evident and then mainly in peripheral areas. Overall the South-West forms one of the great temperate wildernesses of the world and the entire area fulfils the criteria of exceptional and natural beauty" (page 49-50, Department of Conservation, Nomination of South-West New Zealand (Te Wāhipounamu) for inclusion in the World Heritage List, 1989)."*....

There is an obligation on the Department of Conservation to manage the World Heritage Area in such a way that its integrity is preserved. ....

29. You can be assured that the Hollyford operation is consistent with this requirement. The operation is intended to assist in the preservation of the values for which the operation area has been recognised as a World Heritage Area, and the objective of the operation is to exterminate introduced pests.

### **Conservation Act 1987**

30. Authorisation under the Conservation Act is concerned with conservation areas. This operation area includes Pyke Forest Conservation Area, which was transferred to DOC and so is deemed to be held for conservation purposes under section 62. This land is treated as if it is a stewardship area. Under section 25:

Every stewardship area shall so be managed that its natural and historic resources are protected.

31. "Natural resources" includes animals of all kinds. Protection covers not only maintaining, but also enhancing.
32. This operation is in accordance with management for the protection of natural resources (animals) and in accordance with the broader conservation purposes:

**conservation** means the preservation and protection of natural and historic resources for the purpose of maintaining their intrinsic values, providing for their appreciation and recreational enjoyment by the public, and safeguarding the options of future generations

33. 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 has been shown to provide protection.
34. 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.
35. 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 relevant conservation management strategy.

*Southland Murihiku Conservation Management Strategy, 2016*

36. Pyke Forest Conservation Area is within the Fiordland Te Rua o te moko Place of the Southland CMS. This activity is consistent with the outcomes and policy direction for pest management in this place. There are outcomes for Fiordland National Park in the CMS which this operation supports.
37. The Conservation Management Strategy identifies animal pests in Appendix 6, including rats, possums and stoats. The proposed operation would be consistent with the Conservation Act, the Conservation General Policy and the relevant Conservation Management Strategy.
38. 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.
39. While section 38 does not cover freshwater 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

### Consultation

40. 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.
41. 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 vertebrate toxins, 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

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

### Decision

It is recommended that you:

1. **Agree** to consider the application, assessment report and this memo;  
 Agree /  Disagree
2. **Note** that the consultation undertaken by the Department is sufficient to meet the section 4 Conservation Act obligations;  
 Agree /  Disagree
3. **Agree** to grant a permission in the name of EcoFX Ltd, which will cover staff and contractors;  
 Agree /  Disagree
4. **Agree** that the proposed permission and conditions consider the adverse effects of the use of sodium fluoroacetate (1080) on DOC managed or administered land and that granting the permission is in accordance with the purpose of the Hazardous Substances and New Organisms Act 1996, recognising the life-supporting capacity of ecosystems and the well-being of people and communities and taking into account the principles and other matters in sections 5, 6, 7 and 8 of that Act;  
 Agree /  Disagree
5. **Agree**, under sub-delegation from the chief executive of the Environmental Protection Authority, to grant permission under section 95A of the Hazardous Substances and New Organisms Act 1996 for the use of 1080 on the land managed or administered by DOC in the operation area;  
 Agree /  Disagree



6. **Agree** you are satisfied that in the area of the operation, rats, stoats and possums are causing damage to wildlife so killing of these pests in the operation area will meet the purpose of the Wildlife Act 1953;

Agree / Disagree

7. **Agree**, under delegation from the Director-General of Conservation, to grant an authorisation under section 54 of the Wildlife Act for the killing of rats, stoats and possums in the operation area by the use of 1080 aerial drop;

Agree / Disagree

8. **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

9. **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;

Agree / Disagree

10. **Agree**, in relation to the area of operation within the Fiordland National Park this operation is in accordance with the purpose of the National Parks Act 1980 and is consistent with the Fiordland National Park Management Plan;

Agree / Disagree

11. **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;

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 5 of the National Parks Act the possible killing of indigenous animals as part of this pest control operation;

Agree / Disagree

13. **Note** that the operation is included within Te Wāhipounamu - South West New Zealand World Heritage Area ...

Agree / Disagree

14. **Agree**, in relation to the area of operation within Te Wāhipounamu - South West New Zealand World Heritage Area that the pest control operation is consistent with the requirement to manage world heritage so that its integrity is preserved consistent with the legislative requirements for managing national parks.

Agree / Disagree

15. **Agree**, in relation to the area of operation that is conservation area that the hunting of animals by the use of poison is in accordance with the purpose of the Conservation Act 1987, 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

16. **Agree**, in relation to the area of operation that is conservation 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

17. If you have agreed to the above, **sign** the attached Permission, **initial** the attached Maps; and **initial and sign** the attached DOC Performance Standard Sheets for Pesticide Use #1, #2, #140 and #141.

s 9(2)(a)



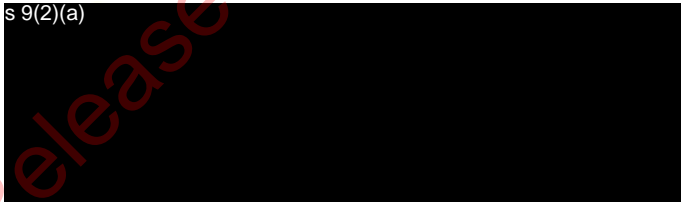
9/10/19

s 9(2)(a), 9(2)(g)(ii)

Landscapes Manager, Predator Free 2050

Decision made by me on 9<sup>th</sup> October 2019

s 9(2)(a)



Hilary Aikman, Director National Operations