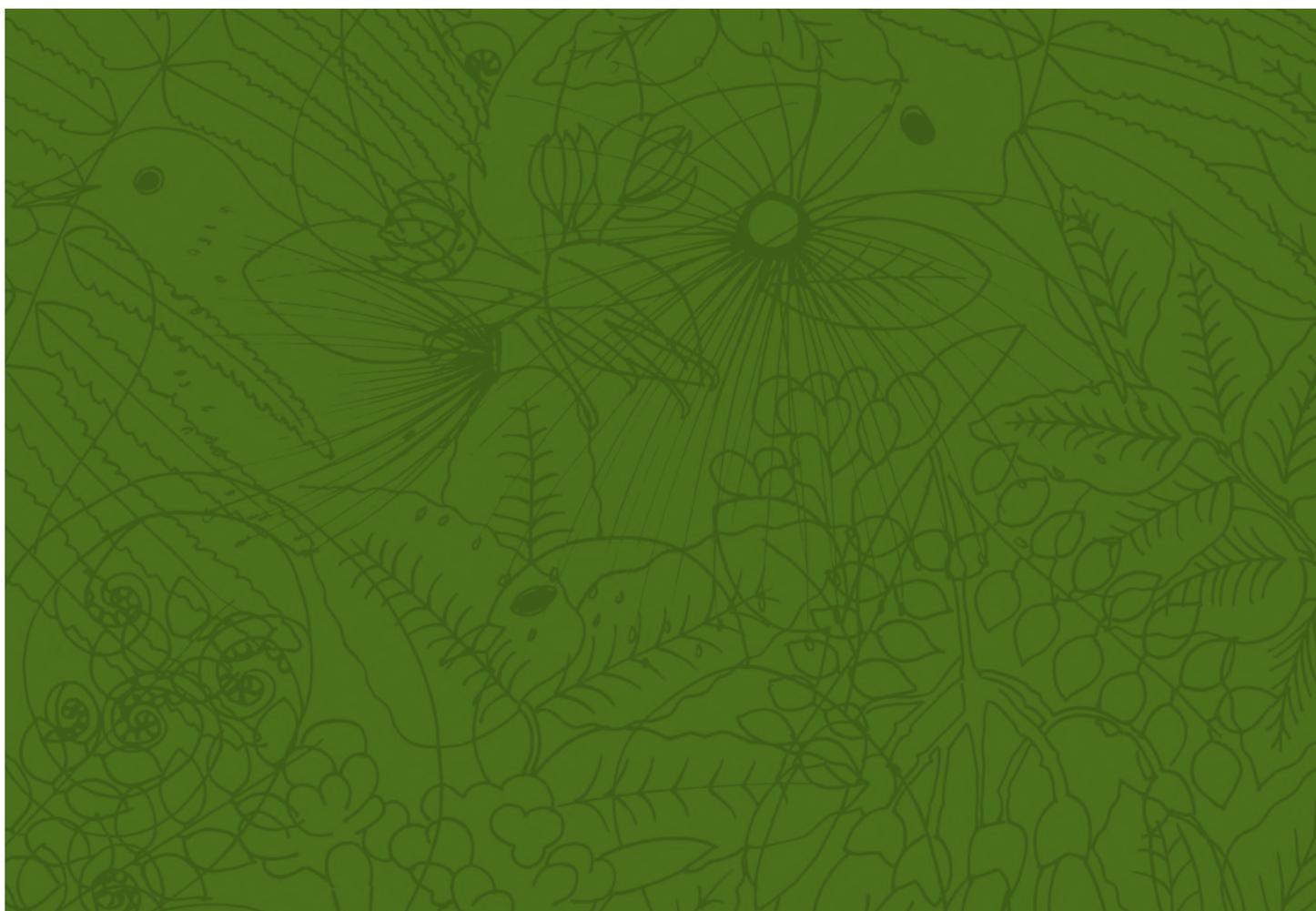




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AERIAL 1080 PEST CONTROL INDUSTRY GUIDELINES



PRODUCED BY



National Pest
Control Agencies

ABOUT NPCA

This document was published by NPCA (National Pest Control Agencies) which, until part way through 2018, provided a co-ordinating forum for agencies and stakeholders to address vertebrate animal pest control in New Zealand. In 2018 its role was largely taken over by the Ministry for Primary Industries.

PUBLICATIONS

Most of NPCA's publications on animal pest control were partially updated in April 2018 and transferred to the library section of the Ministry for Primary Industries' 'BioNet' online portal. The updates reflect the transfer and also acknowledge the change in the regulatory regime during 2017 and 2018, while not fully incorporating these changes in the interim, pending further reviews of the publications. Written by experienced practitioners, the main titles cover:

- best practice guidelines on controlling and monitoring vertebrate pests; and
- information about relevant regulations.

The transferred publications can be found at www.bionet.nz/library

IMPORTANT NOTICE TO READER, 2018

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National Pest
Control Agencies

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Published April 2018

National Pest Control Agencies
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ISBN: 978-1-877474-85-9

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This edition of these guidelines has been published as an interim measure to make clear that they have not yet been updated in the light of substantial legislative changes; a major task that will necessitate considerable collaboration and consultation.

Please regularly check the BioNet publications library at www.bionet.nz/library for the revised version which will be published in due course.

Disclaimer

The National Pest Control Agencies accepts no liability in contract, tort or otherwise for any loss, damage, injury, or expense, whether direct, indirect or consequential, arising out of the provision of information in these guidelines.

Caution – these guidelines are intended to be read alongside applicable laws and regulations. They do not supersede any legal requirements.

ACKNOWLEDGEMENTS

Aerial 1080 Guidelines Steering Committee

Mike Hawes (Chair), National Pest Control Agencies (Department of Conservation)

Stephen Sharpe, Animal Health Board (now TBfree New Zealand)

Greg Kent, ERMA New Zealand (now Environmental Protection Authority of NZ)

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FOREWORD

The *Aerial 1080 Pest Control Industry Guidelines* have been developed by the pest control industry to assist those who plan and manage aerial 1080 operations to understand and manage the critical risks in undertaking aerial 1080 operations and ensure regulatory compliance.

The guidelines are an important step in implementing the recommendation of the Environmental Risk Management Authority (ERMA New Zealand, now the Environmental Protection Authority, or EPA¹) in its 2007 decision on the reassessment of 1080, that “*management practices around aerial drops of 1080 be standardised around industry or operational best practice*”. Additional standard operating procedures exist or are being developed within the industry, with more detailed guidance on operational best practice to supplement the management and regulatory overview focus of these guidelines.

These guidelines are the product of extensive consultation and co-operative effort. The industry decided in 2008 that guidelines should be prepared and, in March 2009, an inter-agency ‘Aerial 1080 Guidelines Steering Committee’ was formed to oversee the project. The committee included representatives from ERMA, the Animal Health Board (now TBfree New Zealand), the Department of Conservation, Local Government New Zealand, Biosecurity New Zealand (now Ministry for Primary Industries) and the National Pest Control Agencies. A consultant, Diederik Meenken of Biodiverse Limited, was appointed to work with the committee in preparing the guidelines and undertaking consultation.

Consultation was carried out in three stages: first, within the industry, with technical experts, regulatory and operational agencies and key interest groups; second with wider interest groups such as Federated Farmers and the aviation industry; and thirdly, public submissions were invited, including invitations to those who made submissions on the ERMA New Zealand reassessment of 1080.

We are grateful to all those who contributed their time and resources to this project – a project that has brought the industry together on this joint effort to ensure minimum best practice standards are achieved.

This is not the end of the story, however. These guidelines are regarded as a ‘living document,’ which will be regularly reviewed and updated as necessary. Readers are encouraged to send in feedback, using the form at the back of this document, so that the guidelines can be further improved if required through an ongoing process of communication and co-operation.

¹ The Environmental Protection Authority (EPA) was established in 2011

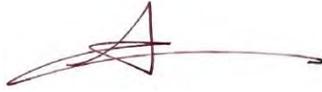
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William McCook
Chief Executive
Animal Health Board
(now TBfree New Zealand)



Eugene Bowen
Chief Executive
Local Government New
Zealand



Alastair Morrison
Director-General
Department of Conservation

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ENDORSEMENTS

Environmental Protection Authority of New Zealand (EPA)

When the Environmental Risk Management Authority (now Environmental Protection Authority) reassessed 1080, the Authority recommended that the pest control industry standardise management practices around aerial drops of 1080 around best practice to ensure consistency.

These guidelines have been developed by industry in response to the Authority's recommendation and are intended to give an overview to those who are developing Standard Operating Procedures (SOPs) of the risks surrounding an aerial 1080 operation and the performance standards that must be achieved to manage those risks.

The vertebrate pest control industry has been involved in the guidelines project, either through representatives on the project Steering Committee or through the various consultation phases. The industry is to be congratulated on the effort that has gone into the development of these guidelines; we look forward to seeing their effect.



Rob Forlong
Chief Executive
Environmental Risk Management Authority
of New Zealand
(now Environmental Protection Authority)



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Department of Labour

The Department of Labour recognises the excellent work of the National Pest Control Agencies for producing these Guidelines. It is a comprehensive document that provides practical guidance for the aerial 1080 application industry.

The Department endorses this guideline as being a statement of preferred work practices or arrangements for the purposes of ensuring the health and safety of persons to whom this guideline applies.

The Department thanks all those who were involved with the development of these Guidelines, and encourages the adoption of this document by everyone involved in the industry.



Maarten Quivooy
Group Manager, Workplace Services
Department of Labour
18th February 2011

Department of Labour
TE TARI MAHI



Ministry of Agriculture and Forestry (now Ministry for Primary Industries)

The Ministry of Agriculture and Forestry (MAF) endorses the *Aerial 1080 Pest Control Industry Guidelines* as a mechanism to support continued improvement in operational best practice. MAF supports the collective approach that the National Pest Control Agencies and the pest control industry have taken in the development of these guidelines.



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These guidelines have also been endorsed by:

The New Zealand Agricultural Aviation Association



Federated Farmers of New Zealand



Royal Forest and Bird Protection Society of New Zealand Inc.



PestNET NZ



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SUMMARY OF AMENDMENTS IN THIS 2018 EDITION

This edition *has not yet been updated in the light of substantial legislative changes* that have occurred since the 2015 edition was published.

A cautionary note has been added to the header of every page, and by way of a watermark – pending a more comprehensive review by the collaborating parties to translate into this document the substantial changes to the regulatory regime for workplace safety and for controls on hazardous substances in NZ. In the meantime this document is **not** up to date, and must be read in light of key changes with reference to, at least:

- The Health and Safety at Work Act 2015 and, particularly:
 - the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, *and*
 - in relation to use of 1080, the Health and Safety at Work (Hazardous Substances) Regulations, effective December 2017 (with some later transitional provision requirements).
- The Resource Management (Exemption) Regulations 2017. (Resource consent for aerial application of 1080 is no longer required in most cases.)
- New requirements with respect to managing potential environmental and disposal effects by way of Hazardous Property Controls (HPC) notices issued by the Environmental Protection Authority, particularly:
 - ▶ the Hazardous Substances (Hazardous Property Controls) Notice 2017.

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CONTENTS

TERMS AND ABBREVIATIONS	9
PART 1. POLICY AND PRINCIPLES FRAMEWORK.....	13
1.1 BACKGROUND AND PURPOSE.....	13
1.2 SCOPE AND AUDIENCE	14
1.3 PRINCIPLES OF RISK MANAGEMENT	14
1.4 USING THIS DOCUMENT	15
PART 2. ROLES AND RESPONSIBILITIES	17
2.1 OPERATIONS MANAGER	17
2.2 PERSON IN CHARGE (PIC).....	17
2.2.1 CSL Holders.....	18
2.3 ASSISTANTS	18
2.4 PILOTS	18
PART 3. GENERAL REQUIREMENTS FOR WORKING WITH 1080	19
3.1 1080 CONTROLS.....	19
3.2 TRAINING AND LICENCES	20
3.3 STORAGE	21
3.3.1 Storage in Vehicles.....	21
3.3.2 Construction.....	21
3.3.3 Person in Charge (PIC) and Access.....	22
3.3.4 Signage for Stores	22
3.4 RECORD KEEPING AND REPORTING.....	23
3.4.1 Tracking.....	23
3.4.2 Record of Use	24
3.4.3 Operational Reporting.....	24
3.5 ROAD TRANSPORT	24
3.5.1 Packaging for Transport on Roads.....	25
3.6 COMMUNICATION.....	26
3.6.1 Communication.....	26
3.7 PERMISSIONS UNDER HSNO	26
3.7.1 Department of Conservation.....	26
3.7.2 Public Health Unit	27
3.8 HANDLING AND USE	28
3.8.1 Person in Charge (PIC) and Access.....	28
3.8.2 Repackaging	28
3.8.3 Handling Equipment	29
3.8.4 Personal Protective Equipment (PPE).....	29
3.8.5 Location Test Certificates for Fuel Storage in the Field	30
3.9 OPERATIONAL SIGNAGE.....	32
3.9.1 Operational Signage	32
3.9.2 Loading Site Signage.....	33
3.9.3 Sign Maintenance, Hazard Monitoring and Sign Removal.....	34
3.10 EMERGENCY MANAGEMENT.....	35
3.10.1 Spills and other Emergencies	35

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3.10.2	Emergency Notification.....	35
3.11	INCIDENT MANAGEMENT	36
3.12	DISPOSAL.....	36
PART 4.	OPERATIONAL STEPS AND REQUIREMENTS.....	38
4.1	PRE-OPERATIONAL PLANNING	40
4.1.1	Draft Proposed Operational Plan.....	40
4.1.2	Communication	42
4.1.3	Final Permissions and Consents	42
4.1.4	Final Operational Plan	42
4.2	OPERATIONAL PREPARATION	43
4.2.1	People.....	43
4.2.2	Storage Sites	44
4.2.3	Aerial Sites.....	45
4.2.4	Transport.....	45
4.2.5	Disposal	46
4.2.6	Communication and Signage.....	46
4.3	OPERATION.....	46
4.3.1	Notifications and Land Use.....	46
4.3.2	Bait Preparation	46
4.3.3	Application of Aerial 1080	47
4.3.4	Monitoring (Bait Quality and Worker Exposure)	49
4.3.5	Cleanup and Disposal.....	49
4.4	POST-OPERATION.....	49
4.4.1	Monitoring, Signage and Caution Period.....	49
4.4.2	Reporting and Communication	50
PART 5.	INFORMATION COMPENDIUM	51
5.1	KEY RESOURCES.....	51
5.2	LEGISLATION	52
5.3	ADDITIONAL INFORMATION.....	53
5.4	CONTACTS	57

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TERMS AND ABBREVIATIONS

TERMS

1080

Substances containing 1080 (sodium fluoroacetate), including stock solution, carrot or oat baits to which 1080 solution has been applied, and manufactured pellet baits containing 1080.

Area definitions under HSNO (see section 3.8.5)

area of high intensity land use—

(a) includes:

- (i) an area of regular habitation; and
- (ii) a structure made of or containing combustible materials that would sustain a significant fire; and
- (iii) a high density traffic route; but

(b) does not include a small office constructed of non-combustible materials associated with a hazardous substance location that is used by persons authorised to be at the location by the person in charge of that location

area of low intensity land use—

(a) includes:

- (i) an area where any person may be legally present occasionally; and
- (ii) a public park or reserve; and
- (iii) a traffic route of low or medium traffic density; but

(b) does not include an area of regular habitation

area of regular habitation –

includes any dwelling, hospital, school, airport, commercial premises, office, or other area where people regularly congregate

low density –

in relation to a public traffic route, means up to an average per 24 hours of—

- (a) 1,000 vehicles on a road; or
- (b) 50 rail wagons on a railway; or
- (c) 400 people on a waterway; or
- (d) 200 people along a public right of way

medium density –

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in relation to a public traffic route, means greater than low density and up to an average per 24 hours of:

- (a) 5,000 vehicles on a road; or
- (b) 250 rail wagons on a railway; or
- (c) 1,800 people on a waterway; or
- (d) 900 people along a public right of way

high density –

in relation to a public traffic route, means greater than medium density

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ABBREVIATIONS

ACVM	Agricultural Compounds and Veterinary Medicines Act 1997, and associated regulations and conditions of registration.
AH	Holder of Approved Handler Test Certificate for 1080.
CAA	Civil Aviation Act 1990
Communication	Includes consultation and notification
CSL	Controlled Substances Licence endorsed for 1080
DG	Dangerous Goods
DOC	Department of Conservation
EPA	Environmental Protection Authority New Zealand
ERMA	Environmental Risk Management Authority of New Zealand, which became the Environmental Protection Authority (EPA) in 2011
Exclusion Area	Part of the operational area where bait may not be applied (e.g. water supply reservoir).
HPO	Health Protection Officer (means a person designated by the Director General of Health under the Health Act 1956).
HSE	Health and Safety in Employment Act 1992, and associated regulations.
HSNO	Hazardous Substances and New Organisms Act 1996, and associated regulations and controls.
LTA	Land Transport Act 1998
MOH	Medical Officer of Health (means the Medical Officer of Health appointed under the Health Act 1956 for a health district, and includes any Deputy Medical Officer of Health).
MPI	Ministry for Primary Industries
Operational area	The entire area where pest control outcomes are desired, including target areas, sensitive areas and exclusion areas
Permissions	Includes any statutory permissions required from the MOH or HPO who is a HSNO enforcement officer, permissions from DOC, resource consents, and owner/occupier permissions.
PIC	Person in Charge of the place where 1080 is stored or used
PHU	Public Health Unit (of the district health board)
PPE	Personal Protective Equipment
RMA	Resource Management Act 1991
SDS	Safety Data Sheet

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Sensitive Area	Part of the operational area where the presence of bait is not desired but may occur. Typically such areas (e.g. walking tracks) will be manually cleared of visible baits.
Target area	Part of the operational area where bait is intended to be applied.
w/w	Weight for weight

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PART 1. POLICY AND PRINCIPLES FRAMEWORK

1.1 BACKGROUND AND PURPOSE

In August 2007 the Environmental Risk Management Authority (ERMA New Zealand, which became the Environmental Protection Agency, or EPA, in 2011) published its decision on the reassessment of 1080. The full decision document² variously anticipates and recommends that additional best practices be developed, specifically that “*management practices around aerial drops of 1080 be standardised around industry or operational best practice*”.

The recommendation is largely concerned with issues around consultation and communication for aerial 1080 operations, which have been realised with the publication of the “*Communication Guideline for Aerial 1080 Operations*”³. Industry-wide improvements in operational best practice are further recommended in Appendix B2 of the Authority's decision, specifically with regard to managing adverse effects from:

- aerial application on native birds and other non-target vertebrates
- aerial application on native bats
- contamination of soil and plants at 1080 mixing sites
- occupational exposure to 1080.

Accordingly, the purpose of this guidelines document is to provide an overview of industry best practice for aerial 1080 operations. These guidelines are designed to ensure that operators understand critical risks, together with the performance outcomes that must be achieved to manage those risks. References to existing documentation are included wherever possible to assist operators to access information and further guidance they may need to achieve the required outcomes.

These guidelines are not intended to be used as a Standard Operating Procedure (SOP) on their own, and will need to be supplemented by more detailed guidance in the form of various SOPs such as those already maintained within the Department of Conservation (DOC). It is anticipated that further SOPs will be developed over time by other sector participants, for instance, by TBfree New Zealand, various contractors, and local government agencies.

² Environmental Risk Management Authority Decision, Application for the Reassessment of a Hazardous Substance under Section 63 of the Hazardous Substances and New Organisms Act 1996, Name of Substance(s): Sodium Fluoroacetate (1080) and Formulated Substances Containing 1080, Application Number: HRE05002, August 2007, Amended August 2008

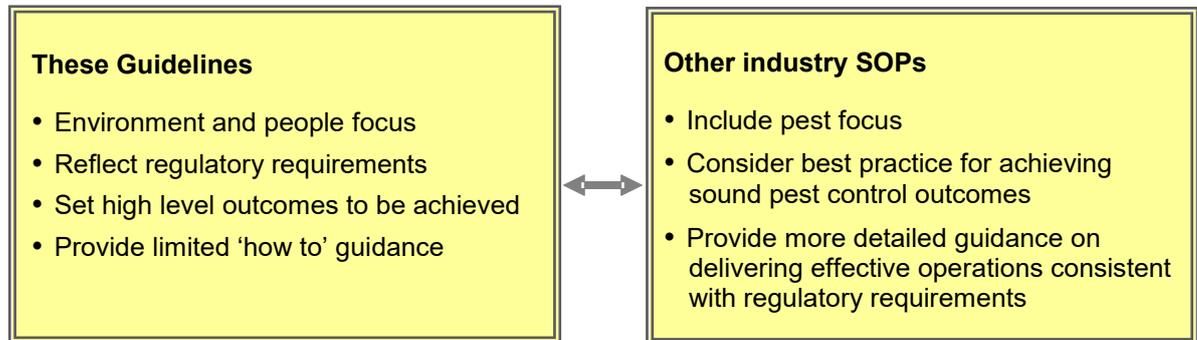
³ Refer Part 5.1, item 'B'.

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Guidelines interdependent with, and inform, other industry SOPs



1.2 SCOPE AND AUDIENCE

The guidelines in this document apply from the point where it has been decided to undertake an aerial 1080 pest control operation. The guidelines are designed to be relevant in regard to control of all target species that are specified on approved 1080 product labels. The target audience includes those responsible for planning and managing aerial 1080 operations, and other people required to be directly involved⁴.

The document concerns itself with critical risks, effectively being those risks that would result in some form of regulatory non-compliance should the risk be managed badly. The steps and actions described in this document set out means of managing such risks.

Non-critical risks on the other hand, might include, for example, a decision not to utilise non-toxic pre-feed. While this would realise an immediate cost saving, it would potentially risk a poor operational result. While obviously important to the pest manager, such risks are deemed non-critical in the sense that no immediate risk to people, property or the environment would result.

1.3 PRINCIPLES OF RISK MANAGEMENT

All persons supplying or using 1080 have a duty of care to people, property, and the environment⁵. This duty of care can be met by ensuring the various regulatory controls imposed to manage risk are complied with. Risk is related to the hazard and the magnitude of the hazard.

⁴ While there needs to be integration between the aerial operator and the operations manager, these guidelines are not intended to be a primary reference for pilots. An appropriate code for pilots, for example, is *New Zealand Agricultural Aviation Association Code of Practice for the Aerial Application of Vertebrate Toxic Agents* [see Part 5.1, item 'G'].

⁵ These terms are used in their widest sense: for instance, 'people' includes their health and safety in the workplace; 'property' will include common wealth such as the trade in primary produce; and 'the environment' includes the welfare of the animals living therein.

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A sound risk management system should include the following elements:

- identification of critical risks, and,
- a clear allocation of responsibilities to proper persons for managing those risks, and,
- that those persons have the required level of skill and experience, including training, qualifications, licences and endorsements, and,
- that those persons have access at all times to required resources and facilities, including necessary documentation.

Risk identification and mitigation comprises part of operational planning.

1.4 USING THIS DOCUMENT

This document is structured in five parts.

- ▶ Part one is this introductory overview.
- ▶ Part two describes the various roles and responsibilities of people involved in delivering an aerial 1080 operation.
- ▶ Part three summarises the regulatory controls on 1080 substances.
- ▶ Part four details the requirements associated with the necessary steps from beginning to end of a 1080 aerial operation.
- ▶ Part five is an information compendium of further resources which may assist users to achieve compliance.

Cross references to resources listed in Part 5 are indicated, where relevant e.g. [see 5.2, 'D'].

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PART 2. ROLES AND RESPONSIBILITIES

Five distinct roles can be usefully identified for any aerial 1080 operation (also referred to hereafter as 'the operation'). These roles each have their own set of responsibilities, as described below.

One person may function in more than one role. For instance the Operations Manager may also be the Person in Charge of the storage and work sites.

Various specific responsibilities attached to these roles are described in Parts 3 and 4.

2.1 OPERATIONS MANAGER

The Operations Manager is the person charged with the oversight and management of the operation. It is their responsibility to ensure that suitably experienced and qualified people and resources are deployed to deliver the operation according to the operational plan and all statutory requirements. While this is not a statutory role, it is nonetheless critical, to ensure that the operation is efficiently managed. While the Operations Manager has overall accountability, many specific responsibilities associated with this role are likely to be delegated to other staff.

2.2 PERSON IN CHARGE (PIC)

The Person in Charge (PIC) is an individual in control of a place where hazardous substances are present. They could be the owner, lessee, sub-lessee or occupier of the place, location or depot; in effect, the person who is in control or possession of the relevant part of the site.

At a 1080 depot, or in the field, the PIC could be the Operations Manager. In a larger operation with multiple locations and activities, several people could be designated as PIC. The PIC must have a good understanding of the legislation and the workplace. It is preferable that they are present at the place, but this is not essential.

The PIC is responsible for ensuring that the hazardous substances under their control are correctly managed and that the environment and health and safety of people are not adversely affected. The specific requirements are detailed throughout the hazardous substances regulations.

The PIC must ensure that the specified controls are in place and are being followed, for example:

- A Location Test Certificate is obtained where needed (for fuel⁶);

⁶ Location test certificates are not usually required at an aerial site as fuel is considered in use on a daily basis. If fuel is stored on site overnight for example, then all relevant storage controls under HSNO will apply where applicable thresholds are exceeded. If storing over 50L of Petrol or Avgas, or over 250L of Jet A1 (in open containers) then a Location Test Certificate is required for the site. For further information regarding the storage requirements directly

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- Incompatible substances are segregated;
- Approved Handlers are appointed for the substances they handle;
- People in possession of 1080 have a Controlled Substance Licence (CSL);
- Someone is appointed to be the person in charge of the substance (i.e. a CSL holder in the case of 1080).

A PIC does not need to hold a CSL for 1080 but, in that case, a CSL holder must be in possession of the 1080.

2.2.1 CSL Holders

Throughout its lifecycle, 1080 must be in the possession of a Controlled Substance Licence (CSL) holder. The CSL holder in possession is usually the person identified in the tracking records. However, for practical purposes in the field the CSL holder in possession is the one who has immediate control of the 1080.

Only CSL holders, or assistants under their immediate supervision, may handle and use 1080.

2.3 ASSISTANTS

Assistants are workers who may or may not hold an Approved Handler (AH) Certificate. They are able to handle and use 1080 only under the immediate supervision of a CSL holder.

Assistants may also have various operational functions which do not include the handling of the 1080, such as deploying signage, land clearance (e.g. of stock), security, or monitoring.

2.4 PILOTS

Pilots applying 1080 must hold a current agricultural rating with an aerial VTA authorisation⁷, and a current Controlled Substance Licence.

They must also be competent to operate on-board satellite guidance systems, and any bait application equipment.

contact a Test Certifier on the following register <http://www.epa.govt.nz/hazardous-substances/certifications/certification-sites/sctc/Pages/Step3-contact-a-test-certifier.aspx>
Further information is also available in a guideline document [see 5.3, 'm'], and the relevant controls documents [see 5.3, 'g'].

⁷ The pilot chemical rating is proposed to be discontinued. In its place will be the requirement to hold a (NZQA) National Certificate in Aerial Agrichemical Application, or equivalent, as a prerequisite for an agricultural rating. There will also be a currency requirement for 5 yearly revalidation training (to match the AH currency period). The aerial VTA authorisation is also a new proposal and will require specific training and competency assessment, and an annual currency check. This proposed rule change is expected to take effect on 1 April 2011, with a 12 month transition to the new requirements.

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PART 3. GENERAL REQUIREMENTS FOR WORKING WITH 1080

3.1 1080 CONTROLS

All aspects of the lifecycles of 1080 are subject to legal requirements, mainly under:

- Hazardous Substances and New Organisms Act 1996 (HSNO)
- Agricultural Compounds and Veterinary Medicines Act 1997 (ACVM)
- Health and Safety in Employment Act 1992 (HSE)
- Land Transport Act 1998 (LTA)
- Civil Aviation Act 1990 (CAA)
- Resource Management Act 1991 (RMA).

Controls for 1080 under HSNO can all be found in one document, *Controls for formulated substances containing sodium fluoroacetate (1080)* at <http://1080science.co.nz/wp-content/uploads/2014/05/1a-Decision-App-A.pdf>. It is mandatory that this document is referred to as it contains all the controls for the use, storage, possession and disposal of 1080 under HSNO.

Permissions granted by the Department of Conservation (DOC) and Medical Officers of Health (MOH) and Health Protection Officers (HPO) who are also HSNO warranted enforcement officers, contain conditions which must also be complied with under HSNO. Any further conditions arising from any consents, contracts and other agreements must also be met.

Conditions of use under the ACVM are explicitly stated on the product label and the conditions of registration for each registered trade name product can be found by consulting the ACVM register <http://www.foodsafety.govt.nz/registers-lists/>.

Requirements of HSE are largely met by complying with HSNO. However, HSE requires that "all practicable steps" be taken to ensure safety, and this may mean more stringent standards than required under HSNO. For instance, while a written emergency response plan under HSNO may only be required above certain quantity thresholds, under HSE it is appropriate to have such a plan regardless of quantity.

Sometimes requirements may be variously imposed for the same thing. Signage, for example, is regulated under HSNO, as well as by ACVM (via registration conditions). Permissions often prescribe further conditions for signage. It is important that all conditions are met, and that means the most stringent conditions will apply.

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The following sections provide general requirements for working with 1080 substances. These requirements apply at all times and across all operational stages.

3.2 TRAINING AND LICENCES

Everyone who handles and uses 1080 substances must be trained to manage them safely. Training can be on-the-job instruction with someone experienced in handling 1080, or through attendance at a practical training course.

Under the Health and Safety in Employment Act, employers need to take all practicable steps to ensure that their employees are adequately trained in the safe handling/use of 1080, including what appropriate personal protective equipment should be used, and what to do in an emergency. In addition to being briefed on safety — and regardless of whether or not they hold an Approved Handler (AH) Test Certificate — any workers who do not hold a CSL for 1080 must also remain under the direct supervision of a CSL holder.

Users of 1080 must be both an Approved Handler (AH) and hold a Controlled Substances Licence (CSL).

An AH has provided evidence of experience in handling 1080 and a minimum standard of training. The AH certification ensures users have:

- the practical skills to safely handle and use 1080;
- knowledge of 1080; and
- knowledge of the HSNO requirements for 1080.

Any unqualified person using 1080 needs to be supervised as part of his/her training towards obtaining a test certificate. AH certification is issued by a test certifier and remains valid for five years.

A CSL is similar to a firearms licence and is needed for the possession of 1080. A CSL provides assurance that 1080 is available only to 'fit and proper' persons.

Non-CSL holders can still handle and use 1080, provided they are under the immediate supervision of a CSL holder (the licence holder must be present and available, i.e. within 'eye and ear shot' at all times).

CSL requirements for test certification include:

- being 17 years of age or over;
- needing to use 1080 for the person's work;
- being a 'fit and proper' person; and either

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- having an Approved Handler Test Certificate for 1080; or
- being some other person who is deemed to be an approved handler having met the requirements for test certification (e.g. a pilot with VTA rating).

CSL holders must carry their CSL whenever handling or purchasing 1080.

3.3 STORAGE

1080 must be stored in a locked facility when not under the direct control of a CSL holder.

Storage must be in accordance with the relevant HSNO controls [see 5.1, 'C'], with some guidance provided on the Safety Data Sheet (SDS). Secure storage means:

- locked up, with the key under the control of a CSL holder;
- strongly constructed (appropriate to location), so that unauthorised persons cannot easily break in.

Temporary storage sites must meet the same requirements as permanent storage sites.

3.3.1 Storage in Vehicles

1080 should not be stored in a vehicle, unless there is no other more secure means of storage available at the time – for example, during an operation in a remote location. If it is necessary to use a vehicle for storage, it must be securely locked. The substance should preferably be stored inside a locked container (appropriately labelled), bolted to the body of the vehicle and out of sight.

3.3.2 Construction

Permanent storage areas must be soundly constructed in a flood-free area and set up so that any spills can be contained (e.g. with impermeable floors and nib walls). Construction must provide for 1080 substances to be stored in accordance with the relevant HSNO controls [see 5.1, 'B'] and as directed by the SDS.

If the storage area contains more than 100 litres of 1080 solution then secondary containment must be provided. This may be by way of bunding or nib walls in permanent storage areas, or drip trays at temporary storage sites. Regardless of quantity, it is recommended that provision is always made for secondary containment of 1080 solution.

Local councils have rules for storage of hazardous substances which must also be complied with.

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For more detailed practical guidance on construction of a permanent storage facility refer Appendix L of NZS8409 [see 5.1, 'E']. Local district councils should be consulted about their requirements.

Temporary storage facilities must also meet all regulatory requirements for storage, with secure and lockable construction appropriate to the location.

3.3.3 Person in Charge (PIC) and Access

There must be a designated PIC of the storage area. Only persons authorised by the PIC may access the storage area.

3.3.4 Signage for Stores

As a matter of safe practice, signage should always be provided for stores regardless of quantities. Signage is mandatory when certain storage thresholds are exceeded, i.e:

- more than 50 litres of 1080 solution, or,
- more than 250 kg of carrot or oat bait to which 1080 solution has been applied⁸, or,
- more than 250 kg of 0.15%-0.2% pellet bait, or,
- more than 1000 kg of 0.04%-0.08% pellet bait.

Signs must be displayed at every access point to the storage area, including vehicle access points. Signs must be able to be read from at least 10 metres.

If the storage area only contains vertebrate toxic agents (which are classes 6 and 9), then a HAZCHEM sign incorporating the pictograms shown below and advising of the actions to be taken in an emergency should be used. If other classes of hazardous substances are also present then additional information may be required on the sign. For detailed guidance refer to the New Zealand Chemical Industry Council's Code of Practice, *Signage for Premises storing hazardous substances or dangerous goods* [see 5.3, 'e'], and/or contact the Fire Service.

⁸ There is no classification or packing group expressly nominated for carrot or oat baits to which 1080 solution has been applied (e.g. carrot baits). However, it seems reasonable to treat such baits in a similar way to pellet baits of similar toxicity for the purposes of storage, signage and transport. That is, 6.1B or packing group II for baits containing more than 0.08% and up to .2% w/w 1080; or 6.1C or packing group III for baits containing between 0.04% and 0.08% w/w 1080 (bait product containing less than 0.04% 1080 w/w is not anticipated, and DG transport requirements do not appear to apply in line with UN grouping criteria for oral toxicity). Any packaging or handling equipment must be leak-proof.

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3.4 RECORD KEEPING AND REPORTING

3.4.1 Tracking

1080 substances are required to be in the possession of a CSL holder at all times until it is finally used or disposed of. A written tracking system must be in place to record which CSL holder has possession at any time. Information must include for every event as applicable:

- the AH (who also holds a CSL) in possession of the 1080 substance;
- the quantity of 1080 substance;
- the location of 1080 substance;
- the unique identifier numbers of the original packaging;
- details of transfer to another place;
- details of disposal of the product, or its containers (where, when and how much).

Tracking records must be kept for a minimum of three years, or 12 months if the 1080 was transferred to another place. Records should be readily available (within 10 minutes at the most). If an Enforcement Officer asks to see these records, they must be able to identify the location of the 1080 within two minutes of viewing them. They also should be able to physically locate the 1080 either within one hour of viewing the records, or whatever time is specified in the Emergency Response Plan, depending on which is shorter.

When 1080 is transferred to another place, the tracking records must identify the AH (who also holds a CSL) to whom it is transferred, together with the date and destination address.

Further information, including tracking templates, is available in the publication *Tracking Vertebrate Toxic Agents* (publcn #B8) available at <http://www.npca.org.nz/index.php/b-series-regulatory>.

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3.4.2 Record of Use

Whenever 1080 is used, a record of that use must be made and kept available by the CSL holder for at least 3 years. The record should include:

- the AH (who also holds a CSL) who used the 1080 substance;
- the unique identifier numbers of the original packaging;
- details of use of the 1080 substance, i.e. where, when and how much.

3.4.3 Operational Reporting

For all aerial application of 1080 substances, a written report must be submitted to EPA no more than 6 months after the date of first toxic application. Follow up reporting is also required to other affected parties. Specific requirements are detailed in the *Communications Guidelines for Aerial 1080 Operations*, available at www.epa.govt.nz/publications/ERMA-1080-guidelines.pdf. A template report is available from EPA on request.

3.5 ROAD TRANSPORT

Limited quantities of 1080 can be transported in the course of their work by CSL holders who do not hold a Dangerous Goods (DG) endorsement as a “tool of trade”; quantities may not exceed:

- 5 litres of 1080 solution, or,
- 50 kg of carrot or oat bait to which 1080 solution has been applied (more than 0.08% and up to 0.2% w/w 1080), or,
- 250 kg of carrot or oat bait to which 1080 solution has been applied (between 0.04% and 0.08% w/w 1080), or,
- 50 kg of 1080 pellets containing more than 0.15% and up to 0.2% w/w 1080, or
- 250 kg of 1080 pellets containing between 0.04% and 0.08% w/w 1080.

There is no classification or packing group expressly nominated for carrot or oat baits to which 1080 solution has been applied. Such baits should be treated in a similar way to pellet baits of similar toxicity for the purposes of storage, signage and transport. That is, 6.1B or packing group II for baits containing more than 0.15% and up to 0.2% w/w 1080, or 6.1C or packing group III for baits containing between 0.04% and 0.08% w/w 1080. Any packaging or handling equipment must be leak-proof.

When carrying limited quantities under “tools of trade”, placarding must not be displayed on the vehicle. CSL holders must comply with the *Land Transport Rule: Dangerous Goods 2005*, including:

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- ensure 1080 substances are properly packaged and identified;
- if the 1080 substance is not in its original packaging (e.g. carrot or oat baits to which 1080 solution has been applied) ensure it is packaged in accordance with the Dangerous Goods 2005 Rule. Packaging must be strong enough, and leak-proof, for transport purposes. The packaging must be labelled appropriately (e.g. the same as the original packaging). The new packaging must clearly identify the unique package number(s) of the original packaging so that the integrity of tracking records is maintained;
- securely load the vehicle and ensure unauthorised access is prevented (e.g. lock it up);
- carry emergency response information (e.g. label, SDS, emergency management plan);
- ensure safe handling practices and emergency procedures are in place and being followed.

Where CSL holders carry in excess of the above listed quantities in the course of their work they must hold a specialist qualification (usually a DG endorsement), and placarding will be required to comply with all the requirements of *Land Transport Rule: Dangerous Goods 2005* as if they were a commercial transport operator. This includes carrying dangerous goods declaration documents, segregating incompatible dangerous goods and food items, and displaying placards on vehicles.

Commercial transport operators must hold a specialist qualification (usually a DG endorsement) when transporting any quantity of 1080 substance for hire or reward. The *Land Transport Rule: Dangerous Goods 2005* must be referred to and placarding will be required. All requirements, including documentation, segregation and placarding must be complied with. A DG endorsed commercial operator transporting packaged 1080 does not need a CSL. However, the 1080 must be delivered to a CSL holder.

The Dangerous Goods Rule 2005 and Dangerous Goods Amendment 2010 are available at <http://www.nzta.govt.nz/resources/rules/dangerous-goods-2005-index.html>

3.5.1 Packaging for Transport on Roads

Packaging must retain contents and operators must either ship in compliant packaging from the manufacturer, or packaging must meet:

- the HSNO packaging regulations (400Kg or less); or
- Part 2A (large packaging) of the HSNO packaging regulations (400kg – 3m³); or
- Part 6 of the HSNO Tank wagon and transportable container regulations.

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3.6 COMMUNICATION

People managing 1080 operations must meet the minimum standards for communication as set out in the HSNO controls, and as specified in the conditions of registration of the trade name product, and as specified in any conditions on permissions.

They are also expected to consult with people likely to be directly affected by an operation, and engage others in the community, to an extent that is reasonable, about the direct and indirect effects that the operation may have on the community.

Specific requirements are detailed in the *Communications Guidelines for Aerial 1080 Operations* [see 5.1, 'B'], available at www.epa.govt.nz/publications/ERMA-1080-guidelines.pdf. Readers are directed to use this key resource, so detailed requirements are not repeated here.

Specific ACVM requirements are detailed in the conditions of registration of the trade name product (# 48 and 40) available at <http://www.foodsafety.govt.nz/register-lists/>.

3.6.1 Communication

There must be:

- communication with owner/occupiers of properties within the operational area, and neighbours;
- communication with other parties who may be affected;
- public notification in newspapers;
- signage.

Remember that effective communication will be a prerequisite to obtaining the following required consents:

- consent of owner/occupier;
- resource consent from the Regional Council (or compliance with Regional Plan).

3.7 PERMISSIONS UNDER HSNO

Permission issued by a designated officer from the Department of Conservation and/or a warranted HSNO enforcement officer from the Public Health Unit of the local district health board is likely to be needed before using 1080.

3.7.1 Department of Conservation

Department of Conservation Permission must be obtained to use 1080 on land managed by the Department.

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This will require completion of an application form and/or an Assessment of Environmental Effects, which will ask for information such as;

- the area where 1080 will be used;
- how it will be used; and
- what consultation has been carried out as part of the planning for an operation.

Contact the local DOC office to obtain the correct application form appropriate to the operation.

3.7.2 Public Health Unit

Permission is required if 1080 is applied in a catchment area from which water is drawn for human consumption or in any other area where a risk to public health may be created.

It is essential to check with the Public Health Unit of the local district health board as to whether there may be a risk to public health from the proposed use of the 1080 and whether a Permission is required.

Those planning the operation must not decide for themselves whether or not there may be a risk to public health – it is up to the Public Health Unit to make this assessment.

If Permission is needed, an application form must be completed, which requires information such as:

- the area where 1080 will be used;
- how it will be used;
- an assessment of public health risks; and
- what consultation will be carried out as part of the planning for the operation.

It is the responsibility of the applicant to provide good quality information, including good quality maps as these are an integral part of the permission.

The enforcement officer from the Public Health Unit will assess the application using the Ministry of Health's guidelines for issuing Permissions for Vertebrate Toxic Agents and may issue a Permission for the use of 1080. The Permission given will place conditions on the use of the 1080 to manage any public health risk.

Permission holders must read and understand the Permission and comply with all of the conditions.

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The Permission must be available to every person involved in the operation, including the pilot, so everyone involved understands what the requirements are. The Permission must be made available to any enforcement officer.

3.8 HANDLING AND USE

Only CSL holders, or persons working under their immediate supervision, may handle or use 1080. The following must always be observed when working with any 1080.

3.8.1 Person in Charge (PIC) and Access

There must be a designated Person in Charge (PIC) of the place where the 1080 is being handled or used. Only persons authorised by the PIC, and lawfully assisting in the application, may have access to the work area.

3.8.2 Repackaging

Wherever possible 1080 should be stored and transported in its original manufacturer's packaging. However, the nature of 1080 aerial operations sometimes requires repackaging for various reasons such as:

- storage of excess product;
- transporting excess bait for storage or disposal via a public road;
- transporting 1080 carrot or oat bait to an operational site via a public road;
- transporting, via a public road, bait (e.g. pellet bait) which has been "bulked up" into larger containers or bags to facilitate loading of aircraft.

If it becomes necessary to store or transport 1080 substances which are no longer in their original packaging, then the substances must be repackaged such that they meet all the requirements of the Packaging, Identification and 6, 8 and 9 Control Regulations. That means, among other things, that packaging must be strong and must not leak, be labelled in the same way as the original packaging, and include the unique identifier numbers of the original packaging (refer 3.5.1). Where one package (e.g. a bottle of stock solution) is repackaged into multiple packages (e.g. sacks of carrot bait), then each new package must contain the original unique identifier, and an additional identifier to distinguish it from other packages (e.g. xxA, xxB etc).

HSNO requirements can be found in, *Controls for formulated substances containing sodium fluoroacetate (1080)* [see 5.1, 'C'] <http://1080science.co.nz/wp-content/uploads/2014/05/1a-Decision-App-.A.pdf>, and in *The Dangerous Goods Rule* [see 5.1, 'F'], available at www.nzta.govt.nz/resources/rules/dangerous-goods-2005-index.html.

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3.8.3 Handling Equipment

Handling equipment and machinery must be fit for purpose, safe for operators, and maintained in good operating condition. This also means equipment must not leak (have no visible discharge) and must dispense 1080 as intended, so that operators are not unnecessarily exposed and toxic material is not discharged to the environment.

3.8.4 Personal Protective Equipment (PPE)

Personal Protective Equipment (PPE) and other safety equipment must be used so that the user does not come into contact with the substance, and the "Workplace Exposure Standard" (WES) for 1080 is not exceeded⁹. The SDS describes the types of required PPE for the specific 1080 substance being used. There will be additional PPE requirements when working with 1080 around aircraft or other handling equipment, including hard hats, hearing protection, eye protection and respiratory protection. Requirements for PPE include the following.

- PPE must be suitable for the purpose, and maintained in good condition in accordance with manufacturer's instructions. Suitable for purpose means able to prevent exposure, and able to ensure the WES for 1080 is not exceeded, which varies with the substance and use. For example, dry bait products require PPE which protects the user from direct skin contact and dust inhalation, while any use of 1080 solution or bait to which 1080 solution has been applied will require waterproof or splash-proof PPE able to minimise or prevent skin contact. For example:
 - Operators using or handling the 1080 stock solution, field solution or prepared carrot or oat baits to which 1080 solution is being or has been applied must wear impervious gloves and splash-proof overalls (or cotton overalls and an impervious apron) worn outside impervious boots. A perspex face mask is also recommended on the SDS.
 - Operators using or handling pellet baits must wear overalls worn outside impervious boots and impervious gloves.
 - When working around aircraft, wear suitable respiratory protection to prevent the inhalation of airborne particles or droplets. A hard hat including, at a minimum, Grade 4 hearing defenders, and eye protection, must also be used around aircraft.
- Everyone who uses the PPE must be trained in its use, with manufacturer's instructions readily available.
 - Everyone must understand how to make sure that their PPE fits correctly; and how to adjust it if necessary.
- All equipment must be cleaned or disposed of after use (taking contaminated PPE home for cleaning is not acceptable).

⁹ The WES for 1080 is (skin, bio) 0.05mg/m³. Where the "skin" notation indicates that there is a potential for 1080 to be absorbed through the skin (as an additional route of exposure [to airborne]); the "bio" notation indicates that occupational exposure to 1080 can be estimated by biological monitoring of urine.

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- Store and transport contaminated PPE in a sealed container if it is not cleaned or disposed of immediately.
- Ensure water, soap, nail brush and paper towels are available.
- Wash hands, arms and face when finished working, and always before smoking, eating, drinking or using the toilet.
- Ensure any wash water is not discharged into waterways.

Employers must provide PPE and/or personal protective clothing (PPC) to employees. Allowances or charging employees for personal protective clothing and equipment is not permitted. Employees can voluntarily provide their own personal protective clothing, as long as it is suitable for the job.

Examples of PPE for working with specific 1080 substances can be found on the Department of Conservation *Safe Handling Sheets* [see 5.3, 'n'], available at <http://www.doc.govt.nz/getting-involved/run-a-project/our-procedures-and-sops/managing-animal-pests/abridged-status-list/> Examples of specific PPE for working with 1080 around aircraft can be found in the *New Zealand Agricultural Aviation Association Code of Practice for The Aerial Application of Vertebrate Toxic Agents*. [see 5.1, 'G'].

3.8.5 Location Test Certificates for Fuel Storage in the Field

Use the following guidance to determine whether a location test certificate is required for fuel storage at an aerial 1080 site. The complete requirements for fuel under HSNO can be found in the various summary of approvals documents [see 5.3, 'g']).

Step 1:

Identify the variables, as each of these influences the requirements:

- fuel types e.g. Avgas (class 3.1A) or Jet A-1 (class 3.1C);
- container types;
- quantities involved;
- time frames the fuels are on site.

Step 2:

Establish the basic facts

- What quantity triggers the requirement for a hazardous substances location:
 - Avgas = 50 litres¹⁰

¹⁰ r55 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001 and change to controls r55 (schedule 6 of the Hazardous Substances (Dangerous Goods & Scheduled Toxic Substances) Transfer Notice 2004

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-
- Jet A-1 = 500 litres¹¹
 - Do tracking requirements apply?
 - Avgas → 'yes' → must be tracked at > 50 litres¹².
 - Jet A-1 → 'no' → 31C classification does not trigger tracking requirements¹³.

Step 3:

Treat each container type separately and consider the requirements.

Tank wagons:

Avgas and Jet A-1 stored in a parked tank wagon does not trigger a hazardous substance location if the tank wagon meets the requirements of the Land Transport Rule and is under the direct control of the (appropriately qualified) driver or in a transit depot¹⁴. Decanting, filling and general handling of the fuels are not permitted activities in a transit depot¹⁵.

Intermediate Bulk Containers (IBC)

Two thousand litres of Avgas or Jet A-1 in containers with an individual capacity of 250 litres or less may be continuously stored for up to 14 days without requiring a location test certificate if all of the following criteria are met¹⁶:

- the containers comply with Packaging Regulations (r11 & Schedule 2 or 3), and
- fuel is situated 15 metres or more from **high intensity land use** or **regular habitation**, and
- fuel is situated in the open or in a well ventilated building, and
- fuel is located so that a spill does not endanger any building, stream, lake or natural water.

If the individual capacities of IBCs are greater than 250 litres, a location test certificate **would not be required** as long as:

- in the case of Jet A-1, the fuel is stored at the place for no more than 18 hours¹⁷, or
- in the case of Avgas, the fuel is stored at the place for no more than 2 hours.

¹¹ Table 4, Schedule 3 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001 (*note: because containers are only periodically open for decanting, the closed values of the table are used*)

¹² Change to controls r55 (schedule 6 of the Hazardous Substances (Dangerous Goods & Scheduled Toxic Substances) Transfer Notice 2004

¹³ Table 4, Schedule 3 of the Hazardous Substances (Tracking) Regulations 2001

¹⁴ Definition of hazardous substances location - r3 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001

¹⁵ Definition of transit depot - r3 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001

¹⁶ Change to controls r81 (schedule 6 of the Hazardous Substances (Dangerous Goods & Scheduled Toxic Substances) Transfer Notice 2004

¹⁷ r55 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001

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Plastic fuel containers

Two thousand litres of Avgas or Jet A-1 in containers with an individual capacity of 250 litres or less may be continuously stored for up to 14 days without requiring a location test certificate if all of the following criteria are met:

- that the containers comply with Packaging Regulations (r11 & Schedule 2 or 3),
- fuel is situated 15 metres from **high intensity land use** or regular habitation,
- fuel is situated in the open or in a well ventilated building, and
- fuel is located so that a spill does not endanger any building, stream, lake or natural water.

3.9 OPERATIONAL SIGNAGE

3.9.1 Operational Signage

Signs must be displayed at every normal point of access to the treatment area where 1080 is used or applied. Signs must also be displayed at prominent places around the perimeter of the operational area¹⁸, and anywhere else as required by any permission or consent.

Signs must include the following information:

- ▶ identify the 1080 substance;
- ▶ warn it is toxic to people and animals;
- ▶ warn of the risk to dogs of scavenging on carcasses;
- ▶ state when the 1080 is to be applied;
- ▶ provide contact details (business hours) of the person responsible for the operation (this may be the person's position rather than name, e.g. "Operations Manager");
- ▶ state that it is an offence to remove signs or baits;
- ▶ provide any other information required by a permitting or consent authority (e.g. DOC or PHU).

Sign information must be able to be read from a distance of:

- ten (10) metres (marking areas where 1080 is used: statement warning the public about the dangers to dogs from carcasses);
- two (2) metres (identification of person laying the 1080 and contact details: date of the application of 1080).

An example sign is shown below. A compliant sign will need to meet all applicable requirements of the HSNO Identification Regulations, ACVM conditions of registration, and any requirements of a permitting or consent authority.

¹⁸ Condition of Registration 10, ACVM.

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3.9.2 Loading Site Signage

When operations have ceased either for each day, or upon completion, loading and storage areas must either be fenced or the area must be decontaminated. A site is decontaminated when all toxic material has been removed and any residue on the soil (or plants) has been diluted to the point that it is no longer hazardous. Decontamination may include manual recovery of spilt baits, washing down with copious quantities of water, removal of contaminated soil to a disposal facility.

If the loading and storage areas are fenced, the fence must be sufficient to stop people inadvertently entering the area. The fence construction must be appropriate to keep any classes of stock likely to be in the vicinity out of the loading and storage areas. Warning signs must also be erected around the perimeter of the fence. The signs and the fence must remain in place until the site is decontaminated.

An example of an appropriate sign for loading sites is shown below.

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3.9.3 Sign Maintenance, Hazard Monitoring and Sign Removal

Signs must be checked regularly to ensure that they remain in place and in good condition. A sign register should be established at the start of the operation and maintained until signs are removed. The sign register should provide for:

- nature and size of signs;
- location (preferably mapped, including co-ordinates to aid GPS navigation);
- date of deployment, and who by;
- scheduled maintenance checks;
- date of recovery.

Signs must remain in place until monitoring shows that hazards associated with the application of 1080 no longer exist, i.e. bait and carcasses are no longer toxic. Monitoring may include laboratory assay of 1080 residues in samples, or visual inspection of the state of decomposition of bait and carcasses. Carcasses should be presumed to retain residues as long as there is soft tissue other than skin remaining. Indirect monitoring of bait toxicity may be inferred from rainfall where comparable information from previous operations in similar environments is available.

Once hazards no longer exist, or a prescribed minimum time is up (whichever is longer), then signs must be removed.

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3.10 EMERGENCY MANAGEMENT

3.10.1 Spills and other Emergencies

This section applies at all storage sites and operational work sites.

All persons authorised to be in the storage area or work site must be trained to deal with spills and other emergencies. The PIC must ensure the necessary equipment is readily available.

Always ensure that the label and SDS are immediately available for first aid and emergency response information. There must also be an Emergency Management Plan¹⁹. The Plan must:

- have clearly documented response procedures for any type of foreseeable emergency (e.g. accidental poisoning, injury, fire, spills, loss, theft, unauthorised persons on site);
- be provided to all staff and relevant emergency service providers;
- provide contact details of trained staff likely to be available to respond;
- be tested every year (or within three months of any changes to the plan or personnel), with test results documented and retained for at least two years.

Information about emergency management is available at <http://www.business.govt.nz/worksafe/information-guidance/all-guidance-items/hsno/hsno-guidance-pages/emergency-management>. You can prepare an emergency response plan from the '[Emergency procedures flip chart](#)' linked from this page, which includes a section on spill procedures.

3.10.2 Emergency Notification

If any 1080 is lost, stolen, spilled or mistakenly applied then the following must be notified as soon as possible and, in any case, within 24 hours. Priority should be given as appropriate to those parties who will need to respond most urgently:

- owner/occupiers of the land where 1080 was mistakenly used, lost or spilled to manage risk of residues in stock and any other risks;
- other parties identified in the Operational Plan or Emergency Management Plan who may be affected (e.g. stock owners, people who extract drinking water);
- the person or organisation who engaged the operator to apply 1080;
- any agencies that granted a permission for the operation;
- officer in charge of the nearest Police station;

¹⁹ If the site contains more than 100 litres or kilograms of any 1080 product, there must be an Emergency Management Plan for the site under HSNO. For the purposes of HSE, it is recommended that an Emergency Management Plan is in place for any quantity of 1080.

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- the Medical Officer of Health;
- the local Regional Council;
- EPA (refer 5.4).

If there is evidence or suspicion that any 1080 baits have been removed from the operational area after the 1080 application, the above parties should be notified as relevant.

If there is any likelihood that farm stock has been exposed to 1080, the owner must be advised as soon as possible and stock removed from the contaminated area. MPI may be contacted for information on withholding periods and any other required actions (refer 5.4 for contact details). MPI is the lead agency in relation to food safety issues.

3.11 INCIDENT MANAGEMENT

All complaints, queries and potential emergencies must be investigated and followed up. An operational representative must be available to receive communications and respond appropriately. The Operations Manager may exercise this function themselves or delegate a specific person to this role.

Information received by the operational representative will be up-scaled to an emergency response where appropriate; otherwise communications will be actioned according to their tenor.

Expectations around incident management include:

- information regarding any potential emergency situation is investigated and actioned according to the emergency response plan (refer 3.10);
- all complaints are received and acknowledged, and followed up as appropriate;
- all queries receive a substantive and timely response;
- allegations of non-compliance are passed on to the appropriate enforcement agencies.

A record of alleged incidents and complaints, together with responsive actions, must be made, and forwarded to EPA as part of the required operational reporting.

3.12 DISPOSAL

Excess or damaged 1080, and the packaging it came in, needs to be disposed of appropriately. Careful operational planning should aim to minimise the quantities of excess 1080 substance requiring disposal. While there are no specific HSNO rules regarding the disposal of contaminated equipment (e.g. disposable PPE), it is recommended that such equipment is disposed of in a similar way and with the same care as the 1080 packaging.

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Detailed information on how to dispose of 1080 and its containers is provided on the product label and the SDS, including any necessary precautions. Know this information and ensure the label and SDS are to hand at all times when handling 1080.

The local District or Regional Council may have rules regarding hazardous waste disposal, including incineration or burial. Check and ensure compliance with these. Permissions and consents may also include conditions regarding disposal.

1080 containers have a unique identifier number and must be made unusable prior to disposal so that they cannot be re-used.

Records must be kept of any disposal of 1080 and its packaging for at least 3 years as part of the tracking requirements for 1080 (refer section 3.4.1.). The records should include who disposed of the product or package and the methods used.

Any 1080 product may only be sold by a person approved by the ACVM²⁰. Therefore, most users are not permitted to sell any excess 1080 product.

²⁰ Condition of registration no. 43.

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PART 4. OPERATIONAL STEPS AND REQUIREMENTS

1080 aerial operations broadly follow a common sequence of events, each of which has its own set of requirements. The sequence of events adopted here is arranged in four phases as follows.

Phase 1 – Pre-operational Planning

Outcomes: All required permissions and consents are obtained, potentially affected people have been consulted, and a final operational plan is complete.

Phase 2 - Operational Preparation

Outcomes: Planning and preparation is completed in readiness for the operation. Responsibilities for all tasks are clearly allocated and documented. Notification is given confirming dates etc.

Phase 3 - Operation

Outcomes: 1080 bait is applied to the target area in accordance with the operational plan and as provided for during operational preparation.

Phase 4 – Post-operation

Outcomes: Follow -up monitoring and communication is completed, post operational reports sent to EPA, bringing the operation to an end.

The following line diagram provides an overview of the four operational phases. It is self-explanatory as to which elements can be undertaken concurrently.

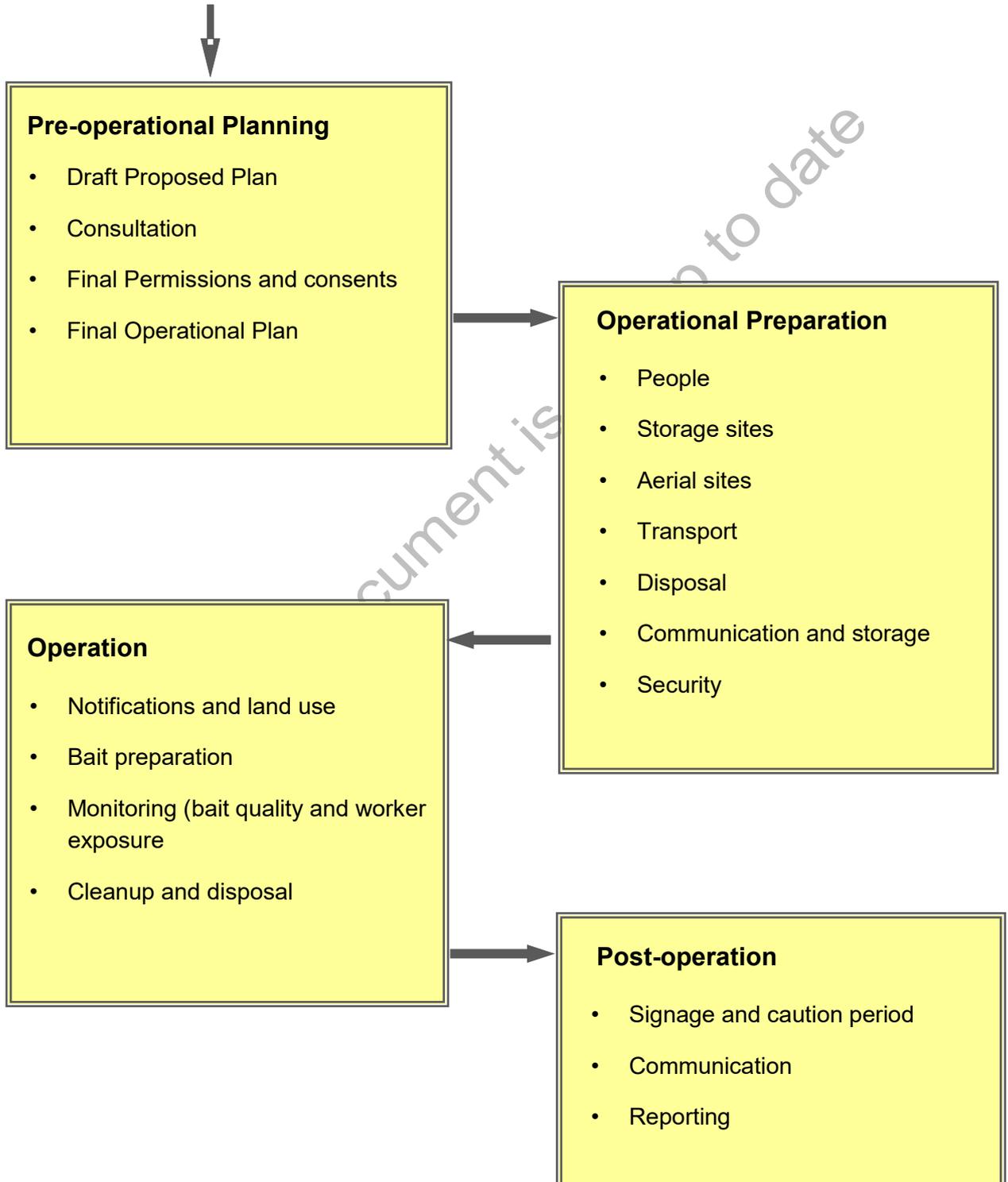
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OVERVIEW OF 1080 AERIAL OPERATIONAL PHASES

Decision to apply 1080 aerially is made



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4.1 PRE-OPERATIONAL PLANNING

4.1.1 Draft Proposed Operational Plan

1. A draft operational plan and map must be prepared, and include the following, mapped where applicable:
- application areas;
 - exclusion and sensitive areas;
 - identification of environmental and non-target risks, and consideration of mitigation and monitoring as appropriate;
 - neighbouring properties and owner/occupier details;
 - potentially affected parties;
 - loading/landing sites;
 - flight paths, including approved crossing points for waterways and roads as applicable;
 - warning sign locations;
 - other relevant features (e.g. public huts, recreation areas, schools, tracks etc);
 - timing of the operation and caution periods.

The plan must further propose the bait type and application rates required to meet the stated objectives of the operation. Best practice use should aim to utilise lowest feasible application rates given operational objectives. In any case, the proposed application must not exceed the maximum application rate for the target species specified on the label, and must not exceed 30 grams per hectare of the active ingredient or any other stated maximum application rate under a consent for the operation. Details to include:

- trade name of product;
- bait type;
- concentration of toxicant;
- number of pre-feeds (if any);
- sowing rates for pre-feeds and toxic applications.

Careful planning should ensure there is no excess bait product remaining at the end of an operation.

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	<p>Permission applications to the Public Health Unit (PHU), and the Department of Conservation (DOC) normally require the above information, so the following may further assist with the drafting of an operational plan.</p> <ul style="list-style-type: none"> ▶ <i>Application for a Permit to use a Vertebrate Toxic Agent (Pursuant to section 95A of the Hazardous Substances and New Organisms Act 1996)</i> [see 5.1, 'A'] (excluding elements relating to consultation). ▶ <i>Obtaining Consents for Animal Pest Control Operations SOP. Appendix 1: Application Form to use pesticides on lands managed by the Department of Conservation</i>²¹ [see 5.3, 'n'] (excluding section 3, consultation), and, <i>Identifying Boundaries for Pesticide Operations SOP</i> [see 5.3, 'n']
<p>2.</p>	<p>The PHU of the District Health Board must be contacted to determine whether a permission is required. If a Health permission is required a draft application must be submitted to the PHU in the prescribed form: <i>Application for a Permit to use a Vertebrate Toxic Agent</i> [see 5.1, 'A'].</p> <p>It may be useful to discuss the proposed operation with the PHU before submitting an application.</p>
<p>3.</p>	<p>If the target area includes any land managed by DOC, an application for permission must be submitted to the Department. [see 5.3, 'n'].</p> <p>The proposal must be discussed with the Department in advance before submitting an application.</p>
<p>4.</p>	<p>A draft application for a resource consent (either notified or non-notified as directed by the regional council or unitary authority) must be prepared, or,</p> <p>the conditions of an existing resource consent, or permitted activity, must be observed in preparation of the draft operational plan.</p> <p>It is recommended that the proposed operation is discussed with the local regional council (or unitary authority) to ensure compliance with their Regional Plan. Compliance with a permitted activity should be assured by obtaining a Certificate of Compliance from the council.</p>

²¹ This is only one of three potential forms for use in applying for DOC permission. Contact your local DOC office to determine the correct form for your operation.

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4.1.2 Communication

5.	<p>Communication must be undertaken in accordance with <i>Communications Guideline for Aerial 1080 Operations</i>. [see 5.1, 'B'] and the conditions of registration of the trade name product.</p> <p>Observance of these guidelines will ensure legal notification requirements are met, and that good faith consultation will occur.</p>
6.	<p>Further consultation or notification must be undertaken as required by permitting and consenting authorities (if any).</p>

4.1.3 Final Permissions and Consents

7.	<p>Agreement in writing must be obtained from all legal occupiers of land (and owners if appropriate) within the target area²² and, notification timeframes must be agreed with the occupiers and owners,</p> <p style="text-align: center;">or,</p> <p>where such agreement cannot be reasonably obtained, any entry onto land and application of a substance must only be in strict accordance with statutory authority.</p>
8.	<p>A PHU permission must be obtained,</p> <p style="text-align: center;">or,</p> <p>written confirmation must be received from the delegated representative of the PHU that permission is not required.</p>
9.	<p>If the target area includes any land managed by the Department of Conservation (DOC), permission must be obtained from DOC.</p>
10.	<p>Resource consent must be obtained from the regional council or unitary authority,</p> <p style="text-align: center;">or,</p> <p>if the proposed application is a permitted activity, the proposed application must comply with all applicable conditions.</p> <p>In either instance, the applicable requirements (resource consent or plan rule) should be appended to the operational plan for reference.</p>

4.1.4 Final Operational Plan

11.	<p>The draft operational plan and maps must be finalised in accordance with the outcomes of consultation and with all the conditions imposed by permitting and consent authorities.</p>
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²² Note: Be aware of the location and tenure of any paper roads and unallocated crown lands.

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12.	The Operations Manager must ensure that all necessary documents anticipated by the operational plan (e.g. checklists and registers) are developed.
13.	The Operations Manager is responsible for ensuring all elements of the operational plan are delivered, and that the plan is kept up-to-date with any variations. The Operations Manager will ensure that people who have roles in the plan are aware of their roles and responsibilities and of any changes which affect their duties.
14.	The Operations Manager is responsible for ensuring document control and availability.

4.2 OPERATIONAL PREPARATION

4.2.1 People

15.	The Operations Manager must ensure a PIC is appointed for each place where 1080 will be stored or used.
16.	The Operations Manager must ensure an appropriate person is designated as a point of contact in case of any incidents or emergencies. This person must be able to be readily contacted, identified via phone numbers on signage, and as advised during consultation and notification.
17.	<p>The Operations Manager must ensure sufficient CSL holders and assistants are available to the PICs to give effect to the operational plan, and to ensure sufficient capacity for emergency response.</p> <p>Where fuel is stored or used at the site, the Operations Manager must ensure sufficient AH (for fuel) are present and that fuel storage requirements are met.</p>
18.	<p>The Operations Manager must ensure a contract is in place with the Civil Aviation Rule Part 137 Certificate Holder, which clearly allocates respective obligations and responsibilities. Each pilot must be supplied with a copy of the permissions obtained for the operations, including the operational maps which form part of the permission conditions.</p> <p>An example is available in Appendix A of the <i>New Zealand Agricultural Aviation Association Code of Practice for The Aerial Application of Vertebrate Toxic Agents</i> [see 5.1, 'G'].</p> <p>The contract must in any case prescribe that the requirements for aircraft carrying out aerial application of 1080 will be met, and who is responsible [see 5.1, 'C' - additional control 7] as follows:</p>

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	<ul style="list-style-type: none"> ▶ No aircraft may fly over a: <ul style="list-style-type: none"> ▪ place specified in a permission as being a place over which such an aircraft must not fly: or ▪ public drinking water supply: or ▪ waterway that is less than 100 metres upstream of a point of extraction from a water source for a drinking water supply (not being a water supply exclusively for stock). ▶ Every aircraft that is carrying out an aerial application must use a navigational guidance system to ensure that 1080 is applied within the application area. ▶ Every aircraft that has carried out an aerial application of 1080, and all equipment used in connection with the aerial application, must be decontaminated before the aircraft or equipment is removed from a place from which the application has been carried out, or before it is used for any other purpose. Decontaminated means washed down with water so that no visible residues of bait or toxin remain. ▶ When an aerial application of 1080 being carried out on a day has ceased for that day, the loading area, and any area where the substance is stored in preparation for loading the substance on to or into the aircraft, must be either decontaminated, or fenced so that people do not inadvertently enter the area and stock cannot gain access to the area. In this instance, signs must be erected at the perimeter of the fence (refer 3.9.2). ▶ Any 1080 stored overnight must either be securely locked up and preferably with security personnel present, or if the 1080 is not locked up, then a CSL holder must remain on site.
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4.2.2 Storage Sites

19.	The PIC of each storage site must ensure that the storage site meets the storage requirements for 1080, is secure and necessary documentation and resources are in place (refer sections 3.3, and 3.10).
20.	The PIC of the fuel storage and refuelling areas (usually the pilot or one of the pilot's ground crew) must ensure that the storage site meets the storage requirements for fuel and that necessary documentation and resources are in place. A location test certificate may also be required (refer 3.8.5)

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4.2.3 Aerial Sites

21.	<p>Hazards at each aerial site must be managed to ensure only those people properly trained and authorised will be present in risk areas specific to that site. It is anticipated that there may be separate and clearly demarked designated areas, for example:</p> <ul style="list-style-type: none"> • non-operational (safe) areas (washing, toileting, eating, resting, visitors); • bait storage areas; • bait preparation areas (e.g. carrot bait preparation); • fuel storage and refuelling areas; • aircraft loading sites. <p>Note that these zones may have different PIC's. For instance, aircraft loading and fuel storage areas will usually be under the control of the pilot or a designated member of the pilot's ground crew, as specified in the contract engaging the aerial operator. While fuel storage areas may not be under the direct control of the Operations Manager, general compliance and safety must be confirmed, including for instance:</p> <ul style="list-style-type: none"> • staff not directly involved in refuelling or loading the aircraft must keep clear; • a Location Test Certificate (if required, refer 4.2.2); • sufficient fire extinguishers and spill kits are available; • an Emergency Management Plan is in place (refer 3.10); • sufficient trained staff are available to respond in case of any emergency. <p>The PIC for each area must provide the necessary resources for that area (e.g. PPE, emergency response and other documentation, refer sections, 3.4, 3.8, 3.10).</p>
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4.2.4 Transport

22.	<p>The Operations Manager must ensure that all proposed road transport of 1080 is compliant (refer section 3.5).</p>
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4.2.5 Disposal

23.	The Operations Manager must ensure provision is made for compliant disposal of contaminated equipment and material, and excess bait (refer section 3.12).
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4.2.6 Communication and Signage

24.	The Operations Manager must ensure availability of warning signs as required by the operational plan, and a sign register. Refer section 3.9
25.	The Operations Manager must ensure all pre-operational notifications and communications are completed, as specified in the operational plan.

4.3 OPERATION

4.3.1 Notifications and Land Use

26.	The Operations Manager must ensure short term notifications are made in accordance with the operational plan.
27.	The Operations Manager must ensure stock clearance is actioned according to individual agreement previously reached with affected occupiers, and , as required by the operational plan.
28.	The Operations Manager must ensure that planned closures and restrictions on public land (if any) are actioned in accordance with the operational plan.
29.	The Operations Manager must ensure all signage is deployed and recorded in the sign register on the day that aerial 1080 is applied, or earlier where that is a condition of a permission or consent.

4.3.2 Bait Preparation

This section only applies where 1080 solution is applied to prepared carrot or oat baits.

30.	<p>The PIC of the bait preparation site must ensure all activities are compliant and safe (refer section 3). This must include a safety briefing prior to commencement (for an example safety briefing refer 5.3, 'n' <i>Safe Handling SOP</i>, section 1.2).</p> <p>CSL holders handling 1080 are jointly responsible for maintaining a safe and compliant working environment.</p>
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31.	The PIC must ensure that any equipment used to handle 1080 can retain and/or dispense the substance in the manner intended, i.e. without leakage (no visible discharge), and is accompanied by sufficient information so that this can be achieved.
32.	<p>Baits must be mixed in accordance with the label requirements for the target species. Finished toxic bait products must also comply with control code E4, regulation 51 [see 5.1, 'C'] :</p> <ul style="list-style-type: none"> • be blue or green in colour; • toxic carrot bait must not exceed 2.0 g 1080 / kg carrot; • toxic carrot bait must be screened so that bait has a mean weight of 6 g or larger²³; • toxic carrot chaff (pieces <0.5 g) must be less than 1.5% of the total weight of carrot; • toxic oats bait must not exceed 0.6 g 1080 / kg oats.
33.	The PIC should ensure that no excess toxic bait is prepared which would impose unnecessary disposal requirements upon completion of the operation.

4.3.3 Application of Aerial 1080

34.	<p>Only persons authorised by the PIC (aerial site) shall be present on the aerial site.</p> <p>As long as unauthorised persons remain on the site, work must cease. This eventuality should be expressly provided for in the Emergency Management Plan. If unauthorised persons will not leave at the request of the PIC, then they can be removed by an enforcement officer.</p> <p>It may be helpful to place signs at normal points of access to the site, warning people to keep out and advising that criminal prosecution may result where the directions of a PIC or enforcement officer are disobeyed.</p>
35.	The PICs of each of the separately demarked areas of the site must ensure all activities are compliant and safe (refer Part 3). This must include a safety briefing prior to commencement (for an example safety briefing refer 5.3, 'n' <i>Safe Handling SOP</i> , section 1.2).

²³ For rabbit control mean bait weights have typically been less than 6 grams. Current research will investigate the efficacy of both mean bait weights around 5g, and mean bait weights less than that. Industry participants may pursue an amendment of the 6 gram bait size control for carrot subject to the outcome of the proposed research.

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	<p>All workers handling 1080 are jointly responsible for maintaining a safe and compliant working environment.</p> <p>More detailed information for working around the aircraft loading site is provided in the <i>New Zealand Agricultural Aviation Association Code of Practice for The Aerial Application of Vertebrate Toxic Agents</i>. [see 5.1, 'G'].</p>
36.	<p>Prior to applying any 1080 bait the Pilot must:</p> <ul style="list-style-type: none"> • ensure that he/she has been given a copy of and understand the requirements of, any permission from a PHU, a resource consent authority, and the Department of Conservation; • confirm that the officer in charge of the nearest police station has been notified; • confirm that public notice of the proposed aerial application has been made not more than 2 months previously in a local newspaper. <p>It is the responsibility of the Operations Manager to ensure that this information is supplied to and discussed with the pilot.</p>
37.	<p>The Pilot must ensure that bait is applied in accordance with the operational plan and the contract, and not applied outside the target area. Specific best practice guidance for achieving this is presented, for example, in the <i>New Zealand Agricultural Aviation Association Code of Practice for The Aerial Application of Vertebrate Toxic Agents</i> [see 5.1, 'G'].</p>
38.	<p>The pilot and operations manager must at all times take environmental conditions (e.g. high winds) into account when considering operational safety aspects.</p>
39.	<p>Tracks and sensitive areas (if any) must be manually cleared of baits and carcasses in accordance with the operational plan or where it is a condition of a permission or consent, and, a written record must be kept in accordance with any condition of a permission or consent.</p>
40.	<p>Upon completion of the 1080 application, or at the end of each day of application, the Person in Charge (aerial site) must receive from the pilot confirmation of the area where bait has been applied, either by way of printout or electronic display/file from the guidance system, and, make a "record of use" specifying the total quantity of bait applied to the target area (refer 3.4).</p>
41.	<p>If at any time any person suspects that 1080 substance has been applied where it was not intended to be, they must immediately notify the PIC. Upon confirmation, the PIC must:</p> <ul style="list-style-type: none"> ▶ treat the misapplication as a spill, and must implement the requirements of the label, SDS and Emergency Management Plan (refer 3.10), and,

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	▶ ensure necessary notifications are made as soon as possible (refer 3.10.2).
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4.3.4 Monitoring (Bait Quality and Worker Exposure)

42.	<p>The Operations Manager should ensure that where bait is prepared on site, samples are collected and analysed to ensure compliance with control code E4, regulation 51 (refer section 4.3.2).</p> <p>Sampling should provide for bait size and chaff content to be monitored at least once per day, and sampling of toxicity at least once per year per machine.</p>
43.	<p>The Operations Manager should ensure that workers handling 1080 are monitored to confirm that safe working practices are effective, and that statutory exposure levels are not being exceeded.</p> <p>Refer also [see 5.3, 'o']:</p> <ul style="list-style-type: none"> ▶ <i>Monitoring Pest Control Workers for Occupational Exposure to 1080</i> ▶ <i>Protect Yourself on the Job: prevent exposure to 1080</i> ▶ <i>How to give a good urine sample: monitoring for occupational exposure to 1080</i>

4.3.5 Cleanup and Disposal

44.	<p>The PICs of the designated work areas at the aerial site must ensure their sites are cleaned up, and with excess or contaminated equipment properly disposed of (refer 3.12). If the site is not completely decontaminated it may alternatively be fenced and signed (refer 3.9.2). If road transport of waste material is required, ensure repackaging requirements are met (refer 3.8.2).</p> <p>Disposal must, in any case, be in accordance with label and SDS directions, and any conditions of permissions and consents, and in accordance with the operational plan.</p>
45.	<p>The PICs of the designated work areas at the aerial site must ensure non-disposable PPE and other equipment is cleaned according to manufacturer's instructions, and not taken home.</p>

4.4 POST-OPERATION

4.4.1 Monitoring, Signage and Caution Period

46.	<p>The Operations Manager must ensure the toxicity of 1080 baits and carcasses of target species is monitored (refer 3.9.3).</p>
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47.	The Operations Manager must ensure signs are maintained and remain in place until monitoring shows that bait and carcasses are no longer toxic. Once hazards associated with the aerial 1080 application no longer exist, or a prescribed minimum time is up subject to a condition of a permission or consent (whichever is the longer), then the Operations Manager must ensure signs are removed (refer 3.9.3).
48.	Restocking of land must not be permitted until such time as the bait is shown to be no longer toxic.
49.	The Operations Manager must ensure any additional monitoring required by consents or permissions or specified in the operational plan is undertaken.

4.4.2 Reporting and Communication

50.	Post operational communications and notifications must be undertaken in accordance with: <i>Communications guideline for aerial 1080 operations</i> , [see 5.1, 'B'] and, Any further requirements imposed by permitting and consenting authorities, or specified in the operational plan.
51.	A written post-operational report must be prepared and submitted to EPA as soon as reasonably practicable but no later than six months after the first date of 1080 application on the operation. A template for the report is available from EPA.

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PART 5. INFORMATION COMPENDIUM

5.1 KEY RESOURCES

The following documents comprise the key resources upon which the requirements of these guidelines rely. It is strongly recommended that all these documents are readily available throughout the operational process, and that regular checks are made for any amendments or updates. See 5.4 for contact details of the resource organisations.

Resource code	Resource	Status and Effect
A.	<i>Application for a Permit for the use of Vertebrate Toxic Agent(s) (Hazardous Substances and New Organisms Act 1996).</i> Ministry of Health.	Prescribed form where a permission is required from the Medical Officer of Health or from a Health Protection Officer who is also a HSNO warranted officer. A local Health Protection Officer must confirm in writing whether this permission is required or not.
B.	<i>Communications guideline for aerial 1080 operations.</i> EPA New Zealand http://www.epa.govt.nz/publications/E-RMA-1080-guidelines.pdf	Guideline prescribed by EPA as an outcome of the EPA 1080 reassessment decision in 2007. Observance ensures compliance with communications rules prescribed by EPA under HSNO. The guideline includes all communication and notification requirements.
C.	<i>Controls for formulated substances containing sodium fluoroacetate (1080).</i> EPA New Zealand http://1080science.co.nz/wp-content/uploads/2014/05/1a-Decision-App-.A.pdf	Controls for 1080 under HSNO are subject to change, for instance following the 1080 reassessment decision. That means the transfer notice, and various HSNO regulations must be read in light of this document. This document is the definitive authority which consolidates and keeps up to date HSNO-related controls for 1080.

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<p>D.</p>	<p><i>Controls for registered trade name products containing sodium fluoroacetate (1080) under the ACVM Act</i></p> <p>ACVM Group MPI</p>	<p>Conditions of registration for 1080 based products can be found on the ACVM Register at http://www.foodsafety.govt.nz/registers-lists/</p>
<p>E.</p>	<p><i>Management of Agrichemicals.</i> HSNOCOP 3-1. NZS8409. Standards New Zealand</p>	<p>Approved Code of Practice under HSNO. While this code excludes vertebrate toxic agents from its scope, many sections are useful and relevant. Appendix L contains detailed guidance on the construction of a hazardous substance store, for instance.</p>
<p>F.</p>	<p><i>Land Transport Rule: Dangerous Goods 2005: Rule 45001/1, and Land Transport Rule: Dangerous Goods Amendment 2010.</i></p> <p>New Zealand Transport Agency http://www.nzta.govt.nz/resources/rules/dangerous-goods-2005-index.html.</p>	<p>This Rule must be complied with directly. There is no provision for Approved Codes of Practice to ensure compliance (c.f. HSNO Act, and H&S Act).</p>
<p>G.</p>	<p><i>New Zealand Agricultural Aviation Association Code of Practice for The Aerial Application of Vertebrate Toxic Agents.</i></p> <p>www.nzaaa.co.nz It is necessary to register a username and password to access the COP (no charge).</p>	<p>This is an industry code; it is not an approved Code of Practice under any Act.</p> <p>The code prescribes the content of the contract with the pilot (or their company), and includes comprehensive practical and legal guidance related to the aerial application of 1080, including calibration etc.</p>

5.2 LEGISLATION

Legislation with immediate application to any part of the aerial 1080 process is listed below. All New Zealand legislation is available online at www.legislation.govt.nz.

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Hazardous Substances and New Organisms Act 1996 - All HSNO controls for 1080 are summarised in *Controls for formulated substances containing sodium fluoroacetate (1080)*. [as amended to 21 August 2008]. [see 5.1,c].

- I. Land Transport Act 1998 (particularly the Land Transport Rule: Dangerous Goods 2005: Rule 45001/1 and Land Transport Rule: Dangerous Goods Amendment 2010)
- II. Health and Safety in Employment Act 1992
- III. Health Act 1956
- IV. Resource Management Act 1991
- V. Agricultural Compounds and Veterinary Medicines Act 1997
- VI. Civil Aviation Act 1990 (and Civil Aviation Rules)

5.3 ADDITIONAL INFORMATION

The following references provide useful additional guidance by way of information, and practical standard operating procedures. These resources are to be read subject to the more authoritative material listed in 5.1, Key Resources, and 5.2, Legislation.

Resource code	Additional information sources
a.	Quick Guides published by EPA and available at http://www.epa.govt.nz/publications-resources/Pages/Publications.aspx . Includes: <ul style="list-style-type: none"> ▶ Approved Handlers – Pesticides ▶ Emergency Management ▶ Group Standards ▶ Packaging ▶ Persons in Charge ▶ Tracking.
b.	Applying for a Controlled Substance License. User guide published by EPA New Zealand and available at http://www.business.govt.nz/worksafe/notifications-forms/hsno-activities-certification-qualifications-licensing/documents/csl-applicaitons-forms-issued-by-test-certifiers/controlled-substance-licence-vtas-fumigants-applicant-guide-748kb-doc
c.	<i>Approved Code of Practice (ACOP) for the Management of Substances Hazardous to Health (MOSHH) in the Place of Work.</i> Department of Labour. http://www.business.govt.nz/worksafe/information-guidance/all-guidance-items/acop-moshh/moshh-ac.pdf

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d.	<i>Approved Code of Practice for Helicopter Logging</i> . Department of Labour. http://www.business.govt.nz/worksafe/information-guidance/all-guidance-items/acop-forest-operations/forest-operations.pdf
e.	<i>Approved Code of Practice: Signage for Premises Storing Hazardous Substances and Dangerous Goods</i> . HSNO COP 2-1. New Zealand Chemical Industry Council http://www.nzcic.org.nz (see 'shop' section).
f.	<i>Approved Code of Practice: Hazardous Substance Storage</i> HSNO COP 16-1. New Zealand Chemical Industry Council http://www.nzcic.org.nz (see 'shop' section).
g.	Controls documents (HSNO) for Petrol, Avgas and JetA1. <ul style="list-style-type: none"> ▶ Petrol: http://www.epa.govt.nz/search-databases/Pages/controls-details.aspx?SubstanceID=3205&AppID=3100 ▶ Avgas: http://www.epa.govt.nz/search-databases/Pages/controls-details.aspx?SubstanceID=3188&AppID=3279 ▶ Jet -A1: http://www.epa.govt.nz/search-databases/Pages/controls-details.aspx?SubstanceID=1462&AppID=3279
h.	<i>Guidelines for the Safe Use of Sodium Fluoroacetate (1080)</i> . Published by Department of Labour 1992. http://www.business.govt.nz/worksafe/information-guidance/all-guidance-items/sodium-fluoroacetate-1080-guidelines-for-the-safe-use-of/1080guidelines.pdf [Was under review at publication of this list].
i.	<i>First Aid for Workplaces - A good Practice Guide</i> . Published by Department of Labour. http://www.business.govt.nz/worksafe/information-guidance/all-guidance-items/first-aid-for-workplaces-a-good-practice-guide/first-aid-2009.pdf
j.	NZS 5433. <i>Transport of Dangerous Goods on Land</i> . Available from Standards NZ.
k.	AS/NZS4452. <i>The storage and handling of toxic substances</i> . Available from Standards NZ
l.	<i>TBfree New Zealand – Aerial 1080 Standard Operating Procedure (SOP)</i> . Relevant for all operations funded by TBfree New Zealand, although joint TBfree New Zealand/DOC operations may be conducted under either organisation's SOP.
m.	<i>Safe Handling of Petroleum Products</i> (informal guideline document). http://www.envirocom.co.nz/documents/Safe_Handling_Petroleum_Products.pdf

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n.	<p>Department of Conservation (DOC) Animal Pest Operations documentation. http://www.doc.govt.nz/getting-involved/run-a-project/our-procedures-and-sops/managing-animal-pests/ Of particular relevance are:</p> <ul style="list-style-type: none"> - Identifying Boundaries for Pesticide Operations SOP - Obtaining Consents for Animal Pest Operations SOP - Safe Handling of Pesticides SOP (including safe handling sheets) - Warning sign templates (on 'other documents' page).
o.	<p>National Pest Control Agencies (NPCA) various guidelines available for download at www.npca.org.nz. Of particular relevance are:</p> <ul style="list-style-type: none"> ▶ <i>Minimum requirements for the safe use and handling of Vertebrate Toxic Agents.</i> ▶ <i>User Guide to Legislation Relating to Vertebrate Pest Control.</i> ▶ <i>Signage</i> ▶ <i>Tracking</i> ▶ <i>Issuing Permissions for Vertebrate Toxic Agents (VTAs); Guidelines for Public Health Units, Revised edition 2010.</i> ▶ <i>Guideline for Sampling and Testing Water associated with Monitoring of Aerial 1080 Baiting Operations (2nd edition)</i> ▶ <i>Monitoring Pest Control Workers for Occupational Exposure to 1080</i> ▶ <i>Protect Yourself on the Job: Prevent exposure to 1080</i> ▶ <i>How to give a good urine sample: monitoring for occupational exposure to 1080</i> ▶ <i>Pest Rabbits - Monitoring and Control</i>

Caution - this document is not up to date

IMPORTANT NOTICE TO READER 2018. This document is out of date in respect of significant regulatory changes; mainly:

- responsibility for NZ's hazardous substances regime has transferred from the Environmental Protection Authority (under the HSNO Act) to WorkSafe New Zealand;
- responsibility, generally, for Health and Safety has shifted to Worksafe New Zealand under its new legislation;
- resource consent requirements under the RMA Act have been removed with the introduction of the Resource Management (exemption) Regulations 2017.

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5.4 CONTACTS

Emergencies Dial 111

TBfree New Zealand

Phone: 0800 4 TB INFO (0800 4 824 636)
Email: info@tbfree.org.nz
Website: www.tbfree.org.nz

Department of Conservation (DOC)

See phone book for local or area office
Website: www.doc.govt.nz

Department of Labour

Phone: 0800 20 90 20
Email: info@dol.govt.nz
Website: www.dol.govt.nz

Environmental Protection Authority New Zealand (EPA New Zealand)

Phone: 0800 376 234
Email: info@epa.govt.nz
Website: <http://www.epa.govt.nz>

Local Government New Zealand

Phone: (04) 924 1200
Email: info@lgnz.co.nz
Website: www.lgnz.co.nz

Ministry of Health – Public Health Units

Contact the local Public Health Unit through the District Health Board. See Ministry of Health website, or the local phone book for details.

Website: <http://www.health.govt.nz>

National Pest Control Agencies (NPCA)

NPCA (the publisher of this document) has transferred most of its functions to the Ministry for Primary Industries (MPI) including most of the NPCA publications, which are now available in MPI's BioNet publications library at www.bionet.nz/library/

Email: info@bionet.nz

New Zealand Agricultural Aviation Association (NZAAA)

Website: www.nzaaa.co.nz

New Zealand Transport Agency (NZTA)

Phone; 0800 699 000

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National Pest
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