

4A Agrichemicals – Application and Use

4A.1 Introduction and Principal Reasons

4A.1.1 Statutory Framework

Section 15 of the RMA controls the discharge of contaminants into air, or onto or into land or water.

Refer to Sections 4.1.1 and 5.1.1 of the Plan for further information on the statutory framework for **agrchemical** use.

4A.1.2 Scope Of Section

This section deals with the discharge of contaminants into air, or onto or into land or water through the use of **agrchemicals**.

4A.1.3 Agrichemical Use

When **agrchemicals** are used in accordance with the manufacturer's label recommendations and/or industry codes of practice, the risks of contamination of soils, **groundwater**, **surface water**, or **agrchemical spray drift** are greatly reduced. Potential adverse effects on human health and the environment can arise from overflows and spillage while sprays are being mixed or spray tanks are being filled and **agrchemical spray drift**.

Agrchemicals are used by most primary producers, and in many domestic or amenity situations for weed, pest and disease control. When used correctly, **agrchemicals** can make a positive contribution to sustainable land use. People have the right to use **agrchemicals** provided that they do not result in adverse effects on other people, the environment or property, and are used safely and responsibly in accordance with best practice. Equally, other people who may be affected in the event of accidental or unintentional **agrchemical spray drift** have a right to know what **agrchemicals** are to be used or have been used and be able to take precautionary measures.

There are currently no clear regulations controlling the application or effects of **agrchemicals**. The approach in this plan is to avoid significant adverse effects by permitting the use and discharge of **agrchemicals**, subject to conditions. This approach relies strongly on the provisions of New Zealand Standard NZS 8409: 2004 Management of Agrichemicals. The New Zealand Standard has been developed through extensive consultation with industry and other stakeholders and effectively defines Best Practicable Option for the management of **agrchemicals**. Therefore, this plan endorses the standard.

This plan promotes and requires appropriate **applicator** training, as it is an important method of reducing the potential for **agrchemical spray drift**.

4A.2 Issues

4A.2.1 Inappropriate application of **agrchemicals**, particularly where **agrchemical spray drift** occurs, can cause significant adverse effects on human health and the environment. Poor **agrchemical** storage, handling, spill management and application practices may have adverse effect(s) on **groundwater** and **surface water** quality by introducing contaminants to soil.

4A.3 Objectives

4A.3.1 To be consistent with Objectives 4.3.1, 4.3.2, 4.3.3, 4.3.4, 4.3.5 and 5.3.1 in Chapters 4 and 5 of the Plan.

- 4A.3.2** To avoid significant adverse effects on human health and the environment and to protect the quality of air, land and water in the Auckland Region from the inappropriate storage, handling, spill management and application of **agrchemicals**.

4A.4 Policies

Use of Agrichemicals

Explanation:

*NZS 8409: 2004 Management of Agrichemicals effectively defines the Best Practicable Option for appropriate **agrchemical** application practice.*

*Undertaking consultation with any person who is likely to be directly affected by the application of **agrchemicals** allows precautionary measures to be undertaken by that person to reduce any adverse effects from the application of **agrchemicals** that may occur.*

- 4A.4.1** Policies 4.4.1- 4.4.4 and 4.4.6 - 4.4.10 and 4.4.14 – 4.4.15 and 4.4.25 – 4.4.28 inclusive shall be considered in the assessment of any proposal to discharge contaminants into air from the application of **agrchemicals**.
- 4A.4.2** Policies 5.4.1 - 5.4.3 inclusive shall be considered in the assessment of any proposal to discharge contaminants onto or into land or water from the application of **agrchemicals**.
- 4A.4.3** To ensure **agrchemicals** are stored and handled in accordance with good management practices, as described in New Zealand Standard 8409: 2004 Management of Agrichemicals so as to avoid or minimise contamination of land, **groundwater**, **surface waters** and non-target areas.
- 4A.4.4** The discharge of contaminants into air, or onto or into land or water from the application of **agrchemicals** shall comply with the mandatory requirements set out in:
- Section 2 Management of Agrichemicals;
 - Section 4 Storage and Supply of Agrichemicals;
 - Section 5 Use of Agrichemicals;
 - Section 6 Disposal of Agrichemicals and Containers;
 - Appendix L General Storage Requirements;
 - Appendix M Notification and Signage for Application of Agrichemicals;
 - Appendix Q Application Equipment; and
 - Appendix S Disposal of Agrichemicals and Containers
- of New Zealand Standard NZS 8409:2004 Management of Agrichemicals.

Explanation:

*The sections and appendices of NZS 8409:2004 Management of Agrichemicals given in (a) to (h) above contain requirements highlighted by the words “shall” that will minimise any adverse effects on the environment from the use of **agrchemicals**. These shall be considered in the context of how the **agrchemicals** are being used including, but not limited to, storage, method of agrichemical application, **spray plans** and diaries and notification.*

*Other useful parts of NZS 8409:2004 Management of Agrichemicals that may help **applicators** minimise adverse effects on the environment from the use of **agrchemicals** include Appendix C Agrichemical Use, Appendix F Environmental Management, Appendix G Spray Drift Hazard and Weather Conditions, Appendix H Competency and Training, Appendix K6 Emergency Planning – Spillage, Appendix N Adverse Effects and Appendix R Handling and Mixing Chemicals.*

4A.4.5 When assessing the effects from the discharge of contaminants into air, or onto or into land or water from the application of **agrchemicals**, particular regard shall be had, where relevant, to:

- (a) The type of **agrchemical** to be discharged, including its toxicity and volatility and the **carrying agent**;
- (b) The proposed method of application, including the type of spray equipment to be used, the spray volume and droplet size, the direction of spraying and the height of release above the ground;
- (c) The nature of any training undertaken by the operator;
- (d) Measures to avoid **agrchemical spray drift** including **buffer zones**;
- (e) The proximity of the application to **potable water** including roof water;
- (f) The proximity of the application to the following Management Areas:
 - (i) Wetlands;
 - (ii) Natural Lakes;
 - (iii) Natural Streams; and
 - (iv) High Use Streams;
- (g) The timing of application in relation to weather conditions; and
- (h) Communication requirements.

4A.4.6 The discharge of agrichemicals into air shall be considered inappropriate where it causes, or is likely to cause, significant adverse effects from **agrchemical spray drift** beyond the **boundary** of the **premises** where the discharge into air of **agrchemicals** is occurring, including:

- (a) Noxious, dangerous, offensive or objectionable odour, dust, vapour, droplets, visible emissions or particulate; or
- (b) Significant adverse effects on human health or the environment from **hazardous air pollutants**.

Explanation:

*The aerial and ground-based application of **agrchemicals** is an accepted practice in the Auckland region particularly in rural areas. These policies focus on avoiding significant adverse effects from **agrchemical spray drift**. Some areas, places or landuses are particularly sensitive to adverse effects from **agrchemical spray drift**, including:*

- a. *Dwelling houses*
- b. *Educational facilities*
- c. **Amenity areas and public places**
- d. *Domestic and community water supplies*
- e. *Water bodies and associated riparian vegetation*
- f. *Non target plants and/or crops which are sensitive to **agrchemicals***
- g. *Organically farmed properties; or*
- h. *Wetlands, indigenous flora and fauna habitat areas and reserves.*

An adverse effect from **agrchemical spray drift** may include, but not be limited to, the following:

Actual or potential adverse effects(s) on human health including allergic reactions, irritation, toxic poisoning and exposure to **carcinogens** and **teratogens**;

Contamination of domestic or commercial water supplies;

The exceedence of a threshold specified for any substance in the **agrchemical** pursuant to the Hazardous Substances and New Organisms Act 1996.

Adverse effects beyond the boundary of the **premises** on **amenity** such as odour, dust, visible emissions, or reduced access to property or adjoining areas because of contamination (e.g. on grass or clothes washing) from spraying activity;

Adverse effects on ecosystems (including exotic and indigenous flora and fauna);

Contamination of waterbodies (e.g. resulting in residues being detected in fish or the damage of flora or fauna); or

Damage to crops and other plants to the point where the **agrchemical** has affected the growth or quality of the crop, or contaminates the crops to a level where residues exceed limits for safe human consumption.

In responding to a complaint relating to a breach of condition concerning odour or dust in relation to the discharge into air of **agrchemicals** and any adverse effects from **agrchemical spray drift**, (for a resource consent or permitted activity rule), what may be "offensive or objectionable" will generally be determined by a Council officer, or officers who have experience in **agrchemical** odour and dust assessment. In such assessments, officers will generally follow relevant case law principles and take into account the FIDOL factors (Frequency, Intensity, Duration, Offensiveness, and Location). This approach aims to promote consistency in the assessment of odour and dust from **agrchemical spray drift**. FIDOL factors will be considered in combination, as no single FIDOL factor determines how noxious, dangerous, offensive or objectionable odour or dust is. 'Location' includes the receiving environment – part of this assessment includes the relevant provisions of the underlying District Plan zones and current neighbouring activities.

Note that signage on public roads needs to meet the requirements of the appropriate road controlling authority.

4A.5 Rules

Note: The definition of **agrchemicals** does not include **fertilisers**, chemicals when used in the treatment of **potable water** or biocides when used in cooling towers.

Permitted Activities

4A.5.1 The discharge of **agrchemicals** into air, or onto or into land or water by handheld application (nonmotorised sprayer carried on foot) or as a bait, is a Permitted Activity subject to the following conditions:

- (a) That beyond the **boundary** of the **premises** where the discharge into air of **agrchemicals** is being undertaken there shall be no significant adverse effects from **agrchemical spray drift** including:
 - (i) No noxious, dangerous, offensive or objectionable odour, dust, vapour, droplets, visible emissions or particulate; and
 - (ii) No **hazardous air pollutants** that cause, or are likely to cause, significant adverse effects on human health, **ecosystems** or property.

- (b) Without prejudice to condition (a), the application shall be undertaken in accordance with:
- (i) All mandatory requirements set out in:
 - (a) Section 2 Management of Agrichemicals;
 - (b) Section 4 Storage and Supply of Agrichemicals;
 - (c) Section 5 Use of Agrichemicals;
 - (d) Section 6 Disposal of Agrichemicals and Containers;
 - (e) Appendix L General Storage Requirements;
 - (f) Appendix M Notification and Signage for Application of Agrichemicals;
 - (g) Appendix Q Application Equipment; and
 - (h) Appendix S Disposal of Agrichemicals and Containers

of New Zealand Standard NZS 8409:2004 Management of Agrichemicals, except where agrichemicals are used in domestic quantities by home gardeners.
 - (ii) The manufacturer's relevant label recommendations; and
- (c) Where the discharge of baits onto or into land occurs in **amenity areas and public places, signs** shall be erected prior to the application commencing, and maintained until the application has ceased and all baits removed or have become non-toxic. **Signs** shall be erected at every point where people normally obtain access to the land (except in the case of the roads including the State highway network where such signs shall be located every 500 metres along that part of the road over which the baiting has occurred) and include the name of the person or body applying the bait, the name and nature of the pesticide, the word poison, the date of application and appropriate cautions regarding drinking water, domestic animals and the taking of animals for meat.

Explanations:

*The **agrichemical** manufacturer's label recommendations also provide guidance on the Best Practicable Option for application of that particular **agrichemical**.*

The use of vertebrate toxic agents in controlling vertebrates, including by the laying of bait, is also covered by the Hazardous Substances and New Organisms Act 1996 and the Agricultural Control and Veterinary Medicines Act 1997.

*The sections and appendices of NZS 8409:2004 Management of Agrichemicals given in (b)(i) above contain requirements highlighted by the words "shall" that will minimise any adverse effects on the environment from the use of **agrichemicals**. These shall be considered in the context of how the **agrichemicals** are being used including, but not limited to, storage, method of agrichemical application, **spray plans** and diaries and notification.*

*Other useful parts of NZS 8409:2004 Management of Agrichemicals that may help **applicators** minimise adverse effects on the environment from the use of **agrichemicals** include Appendix C Agrichemical Use, Appendix F Environmental Management, Appendix G Spray Drift Hazard and Weather Conditions, Appendix H Competency and Training, Appendix K6 Emergency Planning – Spillage, Appendix N Adverse Effects and Appendix R Handling and Mixing Chemicals.*

Policy 4A.4.6 and its associated explanation provides an explanation of the reasons for Rule 4A.5.1.

4A.5.2

The discharge of **agrchemicals** into air, or onto or into land or water by **motorised handheld application**, is a Permitted Activity subject to the following conditions:

- (a) That beyond the **boundary** of the **premises** where the discharge into air of **agrchemicals** is being undertaken there shall be no significant adverse effects from **agrchemical spray drift** including:
 - (i) No noxious, dangerous, offensive or objectionable odour, dust, vapour, droplets, visible emissions or particulate; and
 - (ii) No **hazardous air pollutants** that cause, or are likely to cause, significant adverse effects on human health, **ecosystems** or property;
- (b) Without prejudice to condition (a), the application shall be undertaken in accordance with all mandatory requirements set out in:
 - (i) Section 2 Management of Agrichemicals;
 - (ii) Section 4 Storage and Supply of Agrichemicals;
 - (iii) Section 5 Use of Agrichemicals;
 - (iv) Section 6 Disposal of Agrichemicals and Containers;
 - (v) Appendix L General Storage Requirements;
 - (vi) Appendix M Notification and Signage for Application of Agrichemicals;
 - (vii) Appendix Q Application Equipment; and
 - (viii) Appendix S Disposal of Agrichemicals and Containers

of New Zealand Standard NZS 8409:2004 Management of Agrichemicals, and in accordance with the relevant manufacturer's label recommendations, except where agrichemicals are used in domestic quantities by home gardeners;
- (c) Except where **agrchemicals** are used in domestic quantities by home gardeners, any ground **applicator** shall hold as a minimum a current GROWSAFE® Introductory Certificate or be under the **direct supervision** of a person holding that qualification;
- (d) When the application is within 50 metres of a **boundary** (or in the case of a phenoxy herbicide within 1000 metres of any commercial viticultural or horticultural activity), the **applicator** shall:
 - (i) Either provide written, telephone or email notification to any person who is likely to be directly affected by the application of **agrchemicals** within a timeframe agreed between the parties or, failing such agreement, at least 24 hours prior to spraying or provide notice publicly through recognised methods, such as notice in a **local newspaper** or a letter drop at least seven days prior to the proposed application; and
 - (ii) Where the application is of phenoxy herbicides within 1000 metres of any commercial viticultural or horticultural activity, notification shall also be in accordance with Rule 4A.5.4 (f) and (g).
- (e) The **applicator** shall ensure that notification of any person who is likely to be directly affected by the application of **agrchemicals** as required by condition (d) has occurred prior to the application of **agrchemicals** commencing.
- (f) Where spraying is occurring in an **amenity area or public place** other than roads or railways, **signs** shall be placed within the immediate vicinity of the spraying prior to commencing, and maintained until spraying has ceased; and
- (g) Where spraying is occurring on or alongside roads, or railways, vehicles associated with the spraying shall display prominent **signs** on both the front and back of the vehicle advising that spraying is in progress.

Note that signage on public roads needs to meet the requirements of the appropriate road controlling authority.

Explanation:

The sections and appendices of NZS 8409:2004 Management of Agrichemicals given in (b) above contain requirements highlighted by the words “shall” that will minimise any adverse effects on the environment from the use of **agrchemicals**. These shall be considered in the context of how the **agrchemicals** are being used including, but not limited to, storage, method of agrichemical application, **spray plans** and diaries and notification.

Other useful parts of NZS 8409:2004 Management of Agrichemicals that may help **applicators** minimise adverse effects on the environment from the use of **agrchemicals** include Appendix C Agrichemical Use, Appendix F Environmental Management, Appendix G Spray Drift Hazard and Weather Conditions, Appendix H Competency and Training, Appendix K6 Emergency Planning – Spillage, Appendix N Adverse Effects and Appendix R Handling and Mixing Chemicals.

4A.5.3

The discharge of any **agrchemicals** into air, or onto or into land or water pursuant to Section 7A(1) – (8) and Part 7 of the Biosecurity Act 1993, is a Permitted Activity subject to the following conditions:

- (a) A copy of the public notice or declaration given by the responsible Minister; and details of the following shall be provided to the ARC 48 hours prior to the spraying occurring:
 - (i) The organism to be eradicated,
 - (ii) The principal actions that are to be taken in the attempt to eradicate the organism,
 - (iii) The geographical area of the intended spraying,
 - (iv) The duration of the discharge, the name of the **agrchemical** to be used, the rate and method of application, and the name and contact details of the **applicator**.

4A.5.4

The discharge of **agrchemicals** into air, or onto or into land or water by any method other than handheld application or **motorised handheld application** (as defined in Rule 4A.5.1 and 4A.5.2), including those approved under the H.S.N.O Act 1996 for aquatic weed control in water; or those required for pest control by local authorities for the purposes of biosecurity, is a Permitted Activity subject to the following conditions:

- (a) That beyond the **boundary** of the **premises** where the discharge into air of **agrchemicals** is being undertaken there shall be no significant adverse effects from **agrchemical spray drift** including:
 - (i) No noxious, dangerous, offensive or objectionable odour, dust, vapour, droplets, visible emissions or particulate; and
 - (ii) No **hazardous air pollutants** that cause, or are likely to cause, significant adverse effects on human health, **ecosystems** or property;
- (b) Without prejudice to condition (a), the application shall be undertaken in accordance with all mandatory requirements set out in:
 - (i) Section 2 Management of Agrichemicals;
 - (ii) Section 4 Storage and Supply of Agrichemicals;
 - (iii) Section 5 Use of Agrichemicals;
 - (iv) Section 6 Disposal of Agrichemicals and Containers;
 - (v) Appendix L General Storage Requirements;

- (vi) Appendix M Notification and Signage for Application of Agrichemicals;
- (vii) Appendix Q Application Equipment; and
- (viii) Appendix S Disposal of Agrichemicals and Containers

of New Zealand Standard NZS 8409:2004 Management of Agrichemicals, and in accordance with the relevant manufacturer's label recommendations;

- (c) The discharge is not by aerial application in an Urban Air Quality Management Area given in Map Series 1 which is subject to an operative urban zoning in a District Plan;
- (d) **Training**
 - (i) Any ground **applicator** shall hold, as a minimum, a current GROWSAFE® Introductory Certificate or be under the **direct supervision** of a person holding the GROWSAFE® Applied Certificate or the qualification in ii(1);
 - (ii) Any ground contractor, those registered for aquatic weed control in water and those required for pest control by statutory agencies for the purposes of biosecurity shall hold, as a minimum, either:
 - (1) A GROWSAFE® Registered Chemical Applicator's Certificate; or
 - (2) A GROWSAFE® Introductory Certificate and be under the **direct supervision** of a person holding the qualification in (1); and
 - (iii) Any pilot undertaking aerial application shall hold as a minimum, a GROWSAFE® Pilot's Agrichemical Rating Certificate.
- (e) **Spray Plan**
 - (i) The **applicator** shall prepare a **spray plan** and notify adjoining neighbours in writing that a spray plan has been prepared (and is available on request) at intervals of no more than once a year and at least 7 days prior to the first application of the period covered by the **spray plan**. If the spraying is in **amenity areas or public places** then notification of the preparation of the **spray plan** to adjoining neighbours is not required.
 - (ii) Upon the request of any person who is likely to be directly affected by the application of **agrchemicals**, the **applicator** shall supply that person with a copy of the **spray plan** within seven days;
 - (iii) Details of the notification method used to advise any person who is likely to be directly affected by the application of **agrchemicals** of spraying occurring shall be included in the **spray plan**.
- (f) **Notification in areas other than Amenity Areas or Public Places**
 - (i) Upon the request of any person who is likely to be directly affected by the application of **agrchemicals** to be advised of spraying occurring, the **applicator** shall either:
 - (1) Provide written, telephone, or e-mail notification of the intent to spray to any person who is likely to be directly affected by the application of **agrchemicals** within a timeframe agreed between that person and the **applicator**; or,
 - (2) Failing such agreement, provide written, telephone, or e-mail notification to any person who is likely to be directly affected by the application of **agrchemicals** of the intent to spray at least 24 hours prior to the proposed application; or

- (3) Where 1 or 2 are not practicable, provide notice publicly through recognised methods, such as notice in a **local newspaper** or a letter drop at least seven days prior but not more than 1 month before the proposed application.
- (ii) For discharges directly to water the **applicator** shall notify:
 - (1) Every person taking water for **potable** supply within 1 km downstream of the proposed discharge, at least 12 hours prior to the discharge occurring; and
 - (2) Every holder of a resource consent for the taking of water for public **potable water** supply purposes downstream of the proposed discharge, at least 1 week before commencing the discharge.
- (iii) The **applicator** shall ensure that notification of any person who is likely to be directly affected by the application of **agrchemicals** as required by condition (f) has occurred prior to the application of **agrchemicals** commencing.

(g) **Notification in Amenity Areas or Public Places**

When spraying **amenity areas or public places** the **applicator** shall provide a public notice in a **local newspaper** or a letter drop in the area to be sprayed at least seven days before the proposed application.

- (i) Where spraying is occurring in a public area other than roads or railways, **signs** shall be placed within the immediate vicinity of the spraying prior to commencing, and maintained until spraying has ceased.
- (ii) Where spraying is occurring on or alongside roads, or railways, vehicles associated with the spraying shall display prominent **signs** on both the front and back of the vehicle advising that spraying is in progress.

Note that signage on public roads needs to meet the requirements of the appropriate road controlling authority.

- (iii) For discharges directly to water the **applicator** shall notify:
 - (1) every person taking water for **potable** supply within 1 km downstream of the proposed discharge, at least 12 hours prior to the discharge occurring; and
 - (2) every holder of a resource consent for the taking of water for public **potable water** supply purposes downstream of the proposed discharge, at least 1 week before commencing the discharge.
- (iv) The **applicator** shall ensure that notification of any person who is likely to be directly affected by the application of **agrchemicals** as required by condition (g) has occurred prior to the application of **agrchemicals** commencing.

(h) **Additional condition for aquatic weed control:**

Discharges to water for the purpose of eradication or controlling unwanted **emergent or submerged plants** shall not exceed the quantity and concentration required for that purpose.

Explanations:

*The sections and appendices of NZS 8409:2004 Management of Agrichemicals given in (b) above contain requirements highlighted by the words "shall" that will minimise any adverse effects on the environment from the use of **agrchemicals**. These shall be considered in the context of how the **agrchemicals** are being used including, but not limited to, storage, method of agrichemical application, **spray plans** and diaries and notification.*

Other useful parts of NZS 8409:2004 Management of Agrichemicals that may help **applicators** minimise adverse effects on the environment from the use of **agrchemicals** include Appendix C Agrichemical Use, Appendix F Environmental Management, Appendix G Spray Drift Hazard and Weather Conditions, Appendix H Competency and Training, Appendix K6 Emergency Planning – Spillage, Appendix N Adverse Effects and Appendix R Handling and Mixing Chemicals.

In preparing a **spray plan** reference should be made to NZS 8409:2004 Management of Agrichemicals and to Schedule 5 of this Plan.

The requirement to prepare and notify a **spray plan** is reflective of the requirements in NZS 8409:2004 but is intended to be an information and consultation process and not an approval process. **Spray Plans** do not require the approval of any person who is likely to be directly affected by the application of **agrchemicals** or the consent of the Regional Council.

It is expected that where large numbers of **amenity areas or public places**, such as particular categories of public parks, have similar attributes that a generic **spray plan** might be produced to cover all such **amenity areas and public places** and maybe notified on an annual basis. In other cases, such as privately operated horticulture enterprises, individual **spray plans** will be required to cater for the particular circumstances of the enterprise and its surroundings.

The differing notification requirements applying to **amenity areas and public places** are a recognition of the specific requirements in NZS 8409: 2004 and of the public functions and accountability of the public sector organisations which are required to maintain large numbers of such **amenity areas and public places**.

4A.5.4.5 The discharge of bloat medication into air and onto land by applications using a rosette nozzle is a Permitted Activity subject to the following conditions:

- (a) That beyond the **boundary** of the **premises** where the discharge into air of bloat medication is being undertaken there shall be no significant adverse effects from **agrchemical spray drift** including:
 - (i) No noxious, dangerous, offensive or objectionable odour, dust, vapour, droplets, visible emissions or particulate; and
 - (ii) No **hazardous air pollutants** that cause, or are likely to cause, significant adverse effects on human health, **ecosystems** or property;
 - (b) The discharge shall not be undertaken within 20 metres of any water body;
 - (c) Without prejudice to condition (a), the application shall be undertaken in accordance with all mandatory requirements set out in:
 - (i) Section 2 Management of Agrichemicals;
 - (ii) Section 4 Storage and Supply of Agrichemicals;
 - (iii) Section 5 Use of Agrichemicals;
 - (iv) Section 6 Disposal of Agrichemicals and Containers;
 - (v) Appendix L General Storage Requirements;
 - (vi) Appendix M Notification and Signage for Application of Agrichemicals;
 - (vii) Appendix Q Application Equipment; and
 - (viii) Appendix S Disposal of Agrichemicals and Containers
- of New Zealand Standard NZS 8409:2004 Management of Agrichemicals; and

- (d) Any **applicator** shall hold as a minimum a current GROWSAFE® Introductory Certificate or be under the **direct supervision** of a person holding that qualification; and
- (e) Where bloat medication is being applied in an **amenity area or public place** other than roads or railways, **signs** shall be placed within the immediate vicinity of the spraying prior to commencing, and maintained until spraying has ceased; and
- (f) Where bloat medication is being applied on or alongside roads, or railways, vehicles associated with the spraying shall display prominent **signs** on both the front and back of the vehicle advising that spraying is in progress.

Note that signage on public roads needs to meet the requirements of the appropriate road controlling authority.

Explanation:

*The sections and appendices of NZS 8409:2004 Management of Agrichemicals given in (c) above contain requirements highlighted by the words “shall” that will minimise any adverse effects on the environment from the use of **agrchemicals**. These shall be considered in the context of how the **agrchemicals** are being used including, but not limited to, storage, method of agrichemical application, **spray plans** and diaries and notification.*

*Other useful parts of NZS 8409:2004 Management of Agrichemicals that may help **applicators** minimise adverse effects on the environment from the use of **agrchemicals** include Appendix C Agrichemical Use, Appendix F Environmental Management, Appendix G Spray Drift Hazard and Weather Conditions, Appendix H Competency and Training, Appendix K6 Emergency Planning – Spillage, Appendix N Adverse Effects and Appendix R Handling and Mixing Chemicals.*

Controlled Activity

4A.5.4.6 The discharge of **agrchemicals** into air, or onto or into land or water that does not comply with Rules 4A.5.1, 4A.5.2 or 4A.5.4 is a Controlled Activity, subject to the following standards and terms:

- (a) That beyond the **boundary** of the **premises** where the discharge into air of **agrchemicals** is being undertaken there shall be no significant adverse effects from **agrchemical spray drift** including:
 - (i) No noxious, dangerous, offensive or objectionable odour, dust, vapour, droplets, visible emissions or particulate; and
 - (ii) No **hazardous air pollutants** that cause, or are likely to cause, significant adverse effects on human health, **ecosystems** or property;
- (b) The discharge is not by aerial application in an Urban Air Quality Management Area given in Map Series 1 which is subject to an operative urban zoning in a District Plan;

The ARC shall exercise its control over the following matters:

- (i) Avoiding, remedying or mitigating any significant adverse effects arising from the discharge of **agrchemicals** into air, or onto or into land or water from the non-compliance with relevant manufacturer’s label recommendations and all mandatory requirements set out in:
 - (1) Section 2 Management of Agrichemicals;
 - (2) Section 4 Storage and Supply of Agrichemicals;
 - (3) Section 5 Use of Agrichemicals;
 - (4) Section 6 Disposal of Agrichemicals and Containers;
 - (5) Appendix L General Storage Requirements;

- (6) Appendix M Notification and Signage for Application of Agrichemicals;
- (7) Appendix Q Application Equipment; and
- (8) Appendix S Disposal of Agrichemicals and Containers
of New Zealand Standard NZS 8409:2004 Management of Agrichemicals; or
- (ii) Minimising any significant adverse effects resulting from the non-compliance with notification, signage, training/qualifications or **spray plan** requirements;
- (iii) The monitoring of the consent;
- (iv) The duration of the consent; and
- (v) The timing and nature of reviews of consent conditions.

Explanation:

*The sections and appendices of NZS 8409:2004 Management of Agrichemicals given in 4A.5.6(i) above contain requirements highlighted by the words "shall" that will minimise any adverse effects on the environment from the use of **agrchemicals**. These shall be considered in the context of how the **agrchemicals** are being used including, but not limited to, storage, method of agrichemical application, **spray plans** and diaries and notification.*

*Other useful parts of NZS 8409:2004 Management of Agrichemicals that may help **applicators** minimise adverse effects on the environment from the use of **agrchemicals** include Appendix C Agrichemical Use, Appendix F Environmental Management, Appendix G Spray Drift Hazard and Weather Conditions, Appendix H Competency and Training, Appendix K6 Emergency Planning – Spillage, Appendix N Adverse Effects and Appendix R Handling and Mixing Chemicals.*

Discretionary Activities

- 4A.5.7** The discharge of any **agrchemicals** into air, or onto or into land or water, that does not comply with Rules 4A.5.3, 4A.5.5 or 4A.5.6 is a Discretionary Activity.

Prohibited Activities

- 4A.5.8** The discharge into air of **agrchemicals** not approved under the Hazardous Substances and New Organisms Act 1996 12 months from the date of cancellation of any approval is a Prohibited Activity.
- 4A.5.9** From 1 January 2003, the discharge of 2,4-D butyl ester into air is a Prohibited Activity.
- 4A.5.10** The discharge of any **agrchemicals** into air, or onto or into land or water by applications using a rosette nozzle other than the spraying of bloat medication into air and onto land is a Prohibited Activity.

4A.6 Other Methods

- 4A.6.1** The ARC will carry out a range of activities in relation to the use of **agrchemicals** including;
- (a) Developing partnerships with industry, resource users and community groups to increase awareness of the adverse effects on the environment;
 - (b) Undertaking and sharing research;
 - (c) Providing up to date information on good management practices through publications, pamphlets, 'welcome kits' for new rural landowners/residents, seminars, field days and workshops.

- 4A.6.2** The ARC will, in partnership with other organisations including the New Zealand Agrichemical Education Trust, promote and advocate the adoption of operational best practice for the application of ***agrchemicals*** by:
- Supporting the distribution of education material relating to safe, efficient and effective use of ***agrchemicals***;
 - Promoting compliance with, and training in relation to, the appropriate industry codes of practice in particular New Zealand Standard NZS 8409: 2004 Management of Agrichemicals; and
 - Encouraging ***agrchemical*** aerial and ground contracting companies or businesses to be accredited.

- 4A.6.3** The ARC will encourage the use of alternatives to ***agrchemicals***, including '***integrated pest management***' (IPM) to avoid or minimise the need for ***agrchemical*** use.

- 4A.6.4** The ARC will promote the development of a holistic farm planning process for landowners including good farming practices that minimise adverse environmental effects.

- 4A.6.5** The ARC will liaise with Environment Waikato to ensure that as far as practicable a consistent approach towards ***agrchemical*** use is maintained across the regional ***boundary***.

4A.7 Anticipated Environmental Results

Refer to Chapter 4.7 and 5.7 for general anticipated environmental results associated with ***agrchemical*** use.

Specific anticipated environmental results to be achieved by the Agrichemicals Chapter of this plan are, significant adverse effects on human health and the environment, including crops, from the application of ***agrchemicals*** are avoided, by endorsing appropriate spray application methods.