

Submission from Weed Management Advisory on Road Corridor Vegetation Control

Recommendation

That the Board:

- i. Receives the report.
- ii. Endorses the continued use of glyphosate to control vegetation in the road corridor, subject to EPA approvals and compliance with NZS 8409:2004 Management of Agrichemicals.
- iii. Auckland Transport continue to work with Auckland Council on the development of an action plan to activate the Weed Management Policy.

Executive summary

At the Board meeting on 16 December 2014 the Weed Management Advisory (WMA) presented a Human Rights Impact Assessment (HRIA) commissioned in respect to Auckland Transport's vegetation control programme. They asked that its recommendations be actioned by Auckland Transport (AT).

The report suggests AT is not complying with the requirements of Auckland Council's Weed Management Policy and that the use of agrichemicals (specifically glyphosate) in the road corridor violates individual human rights. AT rejects both these claims.

Glyphosate is used across the AT road network for the purposes of vegetation control in the road corridor, it is also used by most if not all other Road Controlling Authorities in New Zealand.

It is a low toxicity herbicide and approved for use in New Zealand by the Environment Protection Agency (EPA) who are responsible for classifying all chemicals imported into New Zealand and setting conditions and standards relating to their use so as to ensure the safety of the public.

AT is complying fully with the intent and objectives of Auckland Council's Weed Management Policy and NZS 8409:2004 Management of Agrichemicals which is the Code of Practice providing guidance on the safe, responsible and effective management and use of agrichemicals.

Background

What is Glyphosate?

Glyphosate is a low toxicity broad-spectrum non-selective herbicide which is particularly effective on broadleaf weeds and grasses. It was brought to the market by Monsanto under the trade name, Roundup in 1973. Monsanto retained exclusive rights in the United States until its patent expired in September 2000.

Glyphosate is absorbed through the foliage of the plant and kills the plant by interfering with the synthesis of the aromatic amino acids phenylalanine, tyrosine and tryptophan. It does this by inhibiting the enzyme EPSPS and amino acid metabolism in what is known as the shikimic acid pathway. This pathway does not exist in humans or animals.

It is only effective on actively growing plants and has no residual effect. It does not affect seeds which have not yet germinated.

Glyphosate is used throughout the world and has been formulated into dozens of other products sold for use for agriculture, horticulture, viticulture and silviculture purposes as well as garden maintenance. It is commonly used by the general public and available off the shelf at supermarkets and garden centres. It has been estimated that glyphosate sales make up about 60% of the total non-selective herbicide sales around the world.

Glyphosate is used by most if not all Road Controlling Authorities in New Zealand to control vegetation in the road corridor.

How toxic is Glyphosate?

Glyphosate is a low toxicity herbicide and has been given a hazard rating of 6.1E by the EPA. The 6.1 refers to the class of general toxic action and the letter identifies the strength of the effect. The classification system uses a ranking of A-E to identify the strength of the effect with A being the most strong and E being the least.

Glyphosate is rated 6.4A (irritating to the eye), 9.1B (harmful to the aquatic environment) and 9.1D (slightly harmful to fish). Glyphosate is not rated as toxic in respect to irritation to the skin (6.3) or inhalation (6.5) as the level of irritation via these pathways is very low.

To put glyphosate into perspective, dish washing detergents have typical hazard ratings of 6.3A (irritating to the skin), 6.4A (irritating to the eye) and 9.1C (harmful to the aquatic environment) and laundry powders have hazard ratings of 6.1D (general toxicity), 6.3A (irritating to the skin), 6.4A (irritating to the eye) and 6.5A (inhalation).

What do we use Glyphosate for?

Glyphosate is used in urban areas to kill weeds growing out of cracks in the channel or between the channel and the road pavement. It is also used to kill weeds growing out of cracks in asphalt footpaths or weeds such as kikuyu growing over footpaths

It is also used where vegetation is growing over the kerb, along the edges of footpaths and fences and around street furniture such as poles and signs. In these cases generally the extent of spraying is limited to not more than a 100 mm width.

In rural areas glyphosate is used to control the growth of vegetation on unsealed shoulders, surface water channels, culvert inlets and outlets and around street furniture such as edge marker posts, culvert marker posts, guard rails and traffic signs.

Where are we using Glyphosate?

AT has continued to use the same chemical herbicides and vegetation control measures that were used previously by the legacy council organisations. This means that glyphosate is currently used for vegetation control in the road corridor in Rodney District, Waitakere City, Manukau City, Papakura District and Franklin District.

In North Shore City the decision was made by the previous Council to use hot water and mechanical methods instead of glyphosate while in Auckland City, a plant-based herbicide called BioSafe is used.

However in both North Shore City and Auckland City (Waiheke Island excepted), glyphosate still needs to be used to some extent to treat specific weeds which are resistant to these other vegetation control methods.

How do we use Glyphosate?

The use of Glyphosate is prescribed under NZS 8409:2004 Management of Agrichemicals.

AT generally undertake 3-4 spraying cycles per annum with 2-3 sprays during the warmer months and one spray during the winter.

In urban areas the target area for spraying is very small and spraying is undertaken with a hand held wand held no higher than 200 mm off the ground. If the berm is being maintained by the adjoining property owner and there is no vegetation overhanging the kerb or footpath then no spraying is undertaken. It is a requirement that at all times spraying is undertaken in such a manner as to ensure there is no spray drift.

In accordance with the requirements of Section 5.3.1.1 of NZS 8409:2004 Management of Agrichemicals public notification of spraying activities is given by:

- (a) Prior notice in local newspapers or door-to-door advice; and
- (b) On-site signage; and
- (c) Signage on application equipment.

This is supplemented by the provision of information on the AT website and either emails or phone calls to people who have indicated they have a sensitivity to the use of herbicides

In our contract specifications we do not permit spraying outside schools, early education centres, or places of public assembly on days that these institutions are in use and there are limitations on the time of spraying in urban areas to avoid times when children are walking to and from school. Spraying is not permitted on windy days.

A no-spray register is maintained for residents who object to agrichemicals being used in the road corridor directly outside their properties. There are currently 1,198 property owners on the no-spray register. A condition of being placed on the no-spray register is that the property owner maintain the road berm outside their property in a weed-free condition.

AT has recently completed a comprehensive review of the use of glyphosate in the road corridor by its road maintenance contractors. The review sought information on which specific glyphosate products were being used, how they are handled, how often and when spraying is undertaken, which additives are used and their work practices. No concerns or breaches of compliance under NZS 8409:2004 were identified.

What are the risks to the public associated with the use of Glyphosate in the road corridor?

The potential exposure pathways to humans arising from our use of glyphosate in the road corridor are exposure to the skin from direct contact with sprayed weeds and inhalation. It is considered that there are suitable controls in place to ensure that the public are not exposed to either of these potential pathways.

However should they be so, it is important to note that the EPA has not classified glyphosate as toxic in respect to either irritation to the skin (6.3) or inhalation (6.5) as the level of irritation is very low.

What are the practical alternatives to using Glyphosate?

Alternative methods of vegetation control such as hot water/steam or plant-based herbicides such as BioSafe are used on the network. However both are more costly and less effective than glyphosate.

The hot water/steam process does not kill the roots of the weeds and as a result more frequent applications are required to prevent re-growth. It is also a more labour intensive operation and is considerably slower than chemical spraying. It requires the use of a significant volume of water and the truck needs to be refilled on a regular basis. There are some types of weed (e.g. nut grass and kikuyu) which the hot water/steam does not kill and these need to be addressed by mechanical means. Some use of glyphosate is also required to address stubborn and persistent weeds.

The use of hot water/steam for vegetation control purposes in urban areas costs approximately 2-3 times that of glyphosate. It is not practical to use hot water/steam instead of glyphosate in rural areas due to the slow nature of the process and the greater spray area.

There are plant-based herbicides derived from coconut oil or pine oil that are able to be used for vegetation control. However they are more costly to use than glyphosate as a more frequent spraying cycle is required to kill the root structure of the weeds.

BioSafe is one of these plant-based herbicides and has been licenced for use in New Zealand by the EPA. While it is not rated for general toxicity it has been rated as 6.3A (irritating to the skin), 8.3A (corrosive to the eye) and 9.1C (harmful to the aquatic environment). There are also

some weeds that it does not control which still necessitate the use of glyphosate. While products such as BioSafe tend to be favoured by environmental groups, they pose a greater potential hazard to the spray applicator than glyphosate as they are a skin irritant and highly corrosive to the eye.

Issues and options

The WMA consider that AT is not complying with the requirements of Auckland Council's Weed Management Policy and that human rights are being violated by AT using agrichemicals (specifically glyphosate) in the road corridor.

Weed Management Policy

The Weed Management Policy was developed to guide the management of weeds in Auckland's parks and open spaces, including the road corridor.

The Weed Management Policy is a non-statutory document and it is intended that a range of regulatory tools be used to implement the policy vision and objectives. These include the Unitary Plan, the Auckland Council Regional Plan: Coastal and the Auckland Regional Pest Management Strategy.

The Weed Management Policy contains a number of objectives that must be considered when determining options for weed management and vegetation control.

These objectives are as follows:

1. Take an integrated approach to weed management and vegetation control
2. Ensure best practice in weed management and vegetation control
3. Minimise agrichemical use
4. Minimise non-target effects of agrichemical use
5. Ensure public health and safety
6. Protect and enhance the environment
7. Empower the community to manage weeds in accordance with the policy
8. Deliver weed management and vegetation control which is value for money

The policy does not suggest that these objectives should be considered in isolation to each other and recognises that the use of herbicides such as glyphosate is necessary for weed control purposes.

It is considered that the existing use of glyphosate for vegetation control purposes in the road corridor fully complies with these objectives and the intent of the Weed Management Policy.

AT representatives are part of the Auckland Council working group which is developing an action plan relating to the Weed Management Policy. The working group comprises representatives from relevant Council departments such as Parks, Cemeteries and Stormwater, AT and Watercare. The purpose of this initiative is to ensure that a consistent approach to weed management is taken across Council, including CCO's.

The goal is to deliver best practice weed management in the most cost-effective and efficient manner. This working group has identified that chemical control (using glyphosate) is the most efficient method of vegetation control in terms of time, effectiveness and cost.

Human Rights Violation

The WMA have commissioned a Human Rights Impact Assessment (HRIA) in respect to Auckland Transport's vegetation control programme. The HRIA has been prepared by the Environment and Human Rights Advisory (EHRA) which is a non-profit organisation based in Oregon, United States of America. They provide HRIAs to environmental organisations, Government agencies and private firms upon request.

It is suggested by EHRA and the WMA that human rights are being violated by AT using agrichemicals (specifically glyphosate) in the road corridor. It is suggested that our current use of glyphosate for vegetation control purposes in the road corridor is negatively impacting on human health.

The EPA has approved glyphosate for use in New Zealand in accordance with the Hazardous Substances and New Organisms Act 1996 (HSNO Act) and NZS 8409:2004 Management of Agrichemicals.

AT is satisfied that its use of glyphosate in the road corridor fully complies with the relevant standards and specifications and is working with its road maintenance contractors to ensure that our use reflects industry best practice at all times.

We are not aware of any evidence to support the view that the use of glyphosate in the manner that it is used in the road corridor poses any risk to human health.

It is therefore considered that there is no basis for this claim.

Furthermore glyphosate is widely used for roadside vegetation control, agricultural purposes and home maintenance throughout New Zealand and therefore any such violation, if it was to exist, would not be specific to AT.

To help inform its position AT commissioned a literature review and also sought advice and guidance from the relevant government agencies, educational institutions and organisations such as Dairy New Zealand and Fonterra.

It is noted that the use of glyphosate is currently going through an approval renewal process by the European Union (EU). This review which was initiated by the European Food Safety Authority (EFSA) in 2012 is due to be completed later this year.

Clearly the EPA will take direction from the findings of the EU review.

Many of the concerns relating to the use of glyphosate are in relation to its use in conjunction with genetically modified crops (developed to be resistant to glyphosate) which are grown for human consumption. The potential risks and possible exposure pathways to humans associated with this are completely different to those relating to the use of glyphosate for weed control purposes in the road corridor.

Reference is also often made to studies that demonstrate that glyphosate is harmful to humans. These studies often focus on the exposure of the undiluted chemical directly to the target organism or the organism's immediate environment. Such tests do not accurately reflect either the concentrations used, the duration of exposure nor the possible human exposure pathways when glyphosate is used for vegetation control purposes in the road corridor and therefore extrapolating the results to make inferences as to the impacts on human health of roadside spraying is not appropriate.

Next steps

Glyphosate is a low toxicity herbicide that is widely used for vegetation control purposes both within and outside the road corridor. It is used by most if not all other Road Controlling Authorities in New Zealand.

The use of glyphosate is preferred to other methods of vegetation control on the basis of effectiveness, safety and cost. It requires less frequent applications than other methods of vegetation control as it kills the roots of the vegetation as well as the foliage.

Glyphosate is approved for use in New Zealand by the EPA who set conditions and standards relating to the use of agrichemicals so as to ensure the safety of the public.

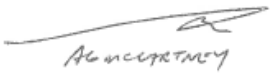


AT is complying fully with these conditions and standards and is not aware of any evidence to suggest that the use of glyphosate for the purposes of vegetation control in the road corridor poses any risk to human health.

Clearly should more relevant information become available or the conditions of use required by the EPA change then Auckland Transport will ensure that these requirements are met and/or review its position on its future use.

Attachments

Attachment Number	Description
1	Submission from Weed Management Advisory on Road Corridor Vegetation Control

Document ownership

Submitted by	Tony McCartney Group Manager Assets & Maintenance	
Recommended by	Greg Edmonds Chief Infrastructure Officer	
Approved for submission	David Warburton Chief Executive	



Response to the Human Rights Impact Assessment of Auckland Transport's Road Corridor Vegetation Control – Nov 2014

**By Dr Meriel Watts & Hana Blackmore
On behalf of Weed Management Advisory
December 2014**

It is with frustration and not a little anger, that the Weed Management Advisory was forced to commission the Human Rights Impact Assessment (HRIA) into Auckland Transport's vegetation control programme. It should not be necessary for ordinary citizens to have to go to this length to be heard and for their concerns to be addressed and answered.

For over fifteen years one million people in our city have been able to live and enjoy their homes, their neighbourhoods and workplaces. They have been able to walk to school, the parks and beach, the shops and cafes, without fear that the very ground they pass has been contaminated with chemical pesticides.

This is no small thing, and the thousands of people who fought long and hard in the 1990s to achieve this non-chemical roadside treatment recognise this. They have not forgotten what it took to make this change, and the time and energy to build a comprehensive weed and vegetation management policy that has served our two largest urban areas, so well, for so long.

But what has been forgotten by too many are the tens of thousands of people scattered throughout our rural towns and communities that make up our new supercity who still endure chemical pesticides on a continuing basis. They have never given up trying to achieve the same privileged treatment as their city cousins, but they lacked the lobbying power and the strength in numbers needed to change policy in their area.

We commissioned this HRIA because we have become deeply disturbed by the inability of Auckland Transport (AT) to acknowledge, let alone respond to, the needs of people to be safe and secure from the adverse health effects of exposure to toxic chemicals being sprayed on their roadsides. We are disturbed that AT either does not understand, or does not care about, the impact of toxic chemicals on people and the environment. We are disturbed that AT appears to be excluding itself, by default if not by intention, from compliance with Council policy, in particular the hugely important 2013 Weed Management Policy that establishes a non-chemical priority in roadside treatment. We are disturbed that in taking this path AT is deliberately ignoring the history of non-chemical choice in this city and negating the decades of democratic decision making that went into it. We are disturbed that AT seems to be using its arms-length CCO status as justification for its actions and inactions.

When seven cities and the regional council were amalgamated into one supercity as Auckland Council in 2010, the hope, and the new Council's intention and desire, was that here at last was the opportunity to harmonise weed policy across the region and build on the best of the legacy city's good practices to become the world's most liveable city. That hope was dashed when roadside vegetation control was handed to Auckland Transport, and to our huge regret, nothing has happened in the intervening four years to change that view.

We commissioned this HRIA because although we have gone to extraordinary lengths over the last four years to work positively within the confines of plans and policies - reporting, submitting and petitioning, and engagement with everyone from officers and councillors to AT engineers and contractors - every opportunity and avenue and every road taken has been a dead end with AT. Our final attempt to engage three months ago ended when we were refused permission to speak to the AT Board on the adverse effects of glyphosate, their preferred herbicide, but nevertheless provided the Board members with a substantial amount of scientific information on the effects of glyphosate on human health and the environment. There has been no response or even acknowledgement from AT to this information nor our request that they fully implement Council's Weed Management Policy as they are required to do. We commissioned this HRIA because people in need cannot wait any longer to be recognised and their situation ameliorated.

We sought an opinion from the Environment and Human Rights Advisory (EHRA) on whether some people's human rights were being violated by AT continuing to expose them to the adverse human health and environmental impacts of chemical sprays. This HRIA confirms that there are a significant number of international human rights norms of concern that are relevant and applicable, and notes that "most of these rights are grounded in legal authority both domestic and international, and all carry the weight of moral authority". It also confirms that human rights standards apply to individuals "not just communities or majorities" and that "this means that if even one or two persons' rights are violated, then human rights violations have occurred."¹

Human rights articulated in this impact assessment as being under threat from AT's chemical sprays include:

- the right to a healthy environment that is conducive to health and wellbeing
- the right to freedom from discrimination due to disability
- the right to equal protection of the law
- the family's right to protection
- the rights to special care for motherhood and a duty to protect the child, its health and their right to education
- the right to effective remedy, and to compensation.

As the impact assessment details, and we can confirm from our own documented and verified reports, the concerns being addressed are real and not insignificant and minor matters. The HRIA notes:

"Of particular concern are reports of adverse physical health impacts from exposure to the chemical sprays being used, of citizen's movements being restricted due to their need to avoid chemical applications, of people being unable to work and of children being unable to attend school. In addition, the potential for discrimination where one or more persons are treated less favourably than others in the same or similar circumstances is of note."

Auckland Transport, and indeed Auckland Council who is legally the policy maker and ultimately the funding body, cannot continue to ignore the injustice of people being discriminated against based solely on where they live. People are not being treated equally – and it is not without note that it is the poorer and more deprived areas that continue to be sprayed with toxic chemicals. It is also of note that the more seriously impacted and

¹ "With the exception of the right to self-determination, all the rights in the *Universal Declaration* and the Covenants are the rights of individuals. Enumerations of rights thus typically begin 'Every human being...', 'Every one has the right...', 'No one shall be...', 'Everyone is entitled...'" Jack Donnelly, Andrew Mellon Professor in the Graduate School of International Studies at the University of Denver, *Universal Human Rights in Theory and Practice*, Cornell University Press, 2002, p23.

Attachment 1- Submission from Weed Management Advisory on Road Corridor
Vegetation Control

vulnerable individuals are also at the lower end of the income scale. They are less likely to be able to avoid the chemical spraying or to have the ability and means to move away and find work and safer schools in another area. They are literally trapped in their homes and in a situation that cannot be avoided.

Auckland Transport and Auckland Council have a fundamental duty to keep people safe and protect their health and wellbeing, and it is necessary that they take this HRIA and their responsibilities seriously and finally listen and act.

And it bears repeating, that the solution is available and viable, and has been for decades. As recommended in this report AT can take immediate steps to significantly reduce its human rights liabilities by implementing non-chemical vegetation control across all its contracts and areas, now. It is not good enough for AT to continue to drag its feet when their inaction is causing harm.

We commend this report and response to Dr Lester Levy the Chairman of the Board of Auckland Transport, and to Mayor Len Brown of Auckland Council, and call on them to action its recommendations with no further delay.

Dr Meriel Watts
Hana Blackmore
On behalf of the *Weed Management Advisory*

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A Human Rights Impact Assessment of Auckland Transport's Road Corridor Vegetation Control

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Matter of Concern: Human health impacts associated with Auckland
Transport's chemical vegetation control programme

Date: November 2014

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Executive Summary

Citizens of Auckland have a long history of concerns about exposure to chemical herbicides applied to roadsides to control vegetation and weeds. Fifteen years ago, as a result of citizen lobbying and submissions, two major legacy cities developed comprehensive non-chemical weed policies. Non-chemical roadside weed control has continued to the present day, with approximately two thirds of the new Auckland Council's 1.5 million population enjoying non-chemical roadside management practices.

Under government reorganization in 2010 management of roadsides devolved to a new Council Controlled Organisation, Auckland Transport (AT), which is required to comply with and implement the new Council's policies. One of these policies is a new unified Weed Management Policy which has reaffirmed a non-chemical priority over the whole region. The Weed Management Advisory (WMA), a network of Aucklanders with expertise in environmentally sustainable and non-chemical weed and vegetation management, is concerned that AT has sought to exclude itself from compliance with Council Policy and is instead continuing to promote chemical management through its own specifications and contracts.

The WMA has sought an opinion on whether human rights are being violated by AT continuing to expose some Auckland citizens to the adverse human health and environmental impacts of chemical sprays.

The purpose of this Report is to provide Auckland Transport and the Weed Management Advisory with a list of international human rights norms of concern in respect to AT's road corridor vegetation control programme, to outline AT's potential liabilities with respect to the programme and to recommend measures AT should take to minimize those liabilities and meet its human rights obligations.

Of particular concern are reports of adverse physical health impacts from exposure to the chemical sprays being used, of citizen's movements being restricted due to their need to avoid chemical applications, of people being unable to work and of children being unable to attend school. In addition, the potential for discrimination where one or more persons are treated less favourably than others in the same or similar circumstances is of note.

The potential consequences of ignoring human rights norms are not insignificant and are outlined in this report, including possible legal actions brought by persons with disabilities (asthma, pesticide intolerances, cardiac arrhythmias, etc.) for failure to accommodate; possible legal actions for unavoidable exposure to agrichemicals on roadsides; and possible multiple small claims court actions for economic redress.

Attachment 1- Submission from Weed Management Advisory on Road Corridor
Vegetation Control

Hana Blackmore, Weed Management Advisory - ...port's road corridor vegetation control.

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Recommended measures to reduce AT's liabilities range from timely implementation of the new weed management Policy and prioritization of nonchemical vegetation control, to measures which should be taken if agrichemical use cannot be avoided, such as strategies for allowing people to avoid the sprays by providing alternative routes of travel and transportation and temporary living and working accommodations.

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Purpose of This Report

The purpose of this Report is to provide Auckland Transport (AT) and the Weed Management Advisory (WMA) with a list of international human rights norms of concern in respect to AT's road corridor vegetation control programme, to outline AT's potential liabilities with respect to the programme and to recommend measures AT should take to minimize those liabilities and meet its human rights obligations.

Background

The vegetation management programme of AT's Road Corridor Maintenance (RCM) Division is responsible for the control of vegetation and weeds in the 7200 kilometres of greater Auckland (excluding state highways).

AT is a Council Controlled Organisation (CCO) that was brought into existence when seven former cities and the Regional Council were amalgamated into one 'supercity' as Auckland Council in 2010. Up until this date each city administered its own vegetation and weed control programme across all parks and open spaces within its boundaries, including roadsides. When AT was handed responsibility for the maintenance of all road corridors the vegetation control programmes were split and the road corridor sectors extracted from the parks and open spaces contracts.

The 29 existing contracts were combined by AT to create nine new 'super' roading contracts that were gradually rolled out, the last contract being awarded in May 2014. Citizens were assured that the legacy city programmes for roadside vegetation management would continue until new contracts were put in place, even though new boundaries had been created which in places crossed different legacy managements. This has resulted in some chemical and some non-chemical managements being combined under one contract.

The vegetation control programmes use a variety of methods for vegetation control, including mechanical mowing, weedeating and sweeping, non-chemical plant-based herbicides, hot water, steam and synthetic chemical herbicides. Applying the chemical products glyphosate and metsulfuron is the method currently used on roadsides in terms of gross area managed, although the vast majority of citizens live in the minor area covered by the two legacy cities (Auckland and North Shore) whose streets and roads have been successfully managed non-chemically for more than fifteen years.

The Weed Management Advisory (WMA) is an informal network of Aucklanders from across the region with interest and expertise in environmentally sustainable and non-chemical weed and vegetation management. It was formed in 2010 in response to concerns about the direction the new Council might take after merging the differing legacy city programmes. Citizens across the region were

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concerned that the non-chemical managements they had successfully fought for and established in the 1990s could be overturned.

By early 2012 the WMA had made three submissions to Auckland's Plans and Strategies calling on the new Council to adopt and fully implement across the whole region the sustainable non-chemical weed and vegetation management policy, still in operation, that the legacy Auckland City had developed in the 1990s. WMA's fourth submission, in March 2012, to the Region's twenty year Long Term Plan¹ was a comprehensive policy proposal that would "ensure community health and wellbeing and ecological and environmental sustainability." The policy plan would:

- reflect widespread community concerns about involuntary exposure to pesticides used in public places;
- reflect modern scientific opinion that ongoing use of pesticides is not sustainable, and is to the detriment of both human health and the environment;
- reflect independent scientific studies that show considerable health effects from exposure to the herbicide glyphosate, and to other pesticides;
- reflect concern by the National Institute of Water & Atmospheric Research (NIWA) that Auckland's marine environment is contaminated with glyphosate and its metabolite AMPA mostly likely resulting from its widespread use on hard surface's principally roadsides.²

At the same time Auckland Council had initiated a review of the use of chemicals to manage weeds and pests in public open spaces, including the use of herbicides for weed control. Whilst the intention was to use the review to develop a council policy that considered only agricultural use, discussions with key stakeholders highlighted the need to consider more broadly the management of weeds and vegetation. The result was that by mid-2012 officers had scoped the development of a full weed and vegetation management policy (ACWMP) that was then submitted to council committees for consultation.

As noted in the first draft paper to the Environment & Sustainability Committee, it was proposed that the policy would "build on legacy council good practice and policies, reflect international good practice and Auckland Council's commitment to be the most liveable city in the world by 2040."³

By August 2013 when the final Policy was adopted by Auckland Council, the WMA and its members had submitted papers, reports and presentations to committees and local boards across the region, culminating in the presentation to the full council of a petition from 4,658 residents which urged Auckland Council and Auckland Transport to "recognise that chemical weed spraying has a significant impact on people's health and wellbeing as well as the environment" and called on them to:

confirm the retention and continuation of the non-chemical roadside weed management in the legacy Auckland and North Shore cities, and adopt non-chemical roadside weed management in the rest of the region.⁴

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Issues

As a Council Controlled Organisation, AT is required to comply with Auckland Council's 2013 Weed Management Policy.

WMA is concerned that AT is having difficulty operating under the new CCO model which, although it is an 'arms-length' organisation, is still governed by policies set by Council. While AT was involved in drawing up the ACWMP they made it clear they did not want their road corridor vegetation control operations to be included. The WMA believes that AT's defeat on this point has resulted in AT having ongoing relationship difficulties with Council which has impeded the progress of implementing the ACWMP.

This is a substantial concern for WMA because the roadside is where 99% of vegetation and weed control is carried out, and therefore where every citizen is unavoidably impacted on a regular basis. It should also be noted that it was the human health effects of the spraying of agrichemicals on the roadside that led to the original campaigns of the 1990s and that precipitated the decisions by the, then, city councils to research and develop the comprehensive non-chemical weed and vegetation management plans. WMA is disturbed that AT, in seeking to exclude itself from compliance with the 2013 ACWMP, is also negating the fundamental basis of that policy and the fifteen years of democratic decision making that went into it.

WMA is also concerned that despite AT being required to include all ACWMP Objectives within its vegetation control contracts by reviewing and amending those contracts where appropriate, it has failed to do so. Several of the Objectives detailed in the ACWMP recognise that agrichemicals can be harmful to human health and the environment, and that agrichemical use is to be minimized. Key to minimizing agrichemical use involves, according to the ACWMP, taking an integrated approach to the prevention and management of weeds using internationally recognized best practice methodologies. Indeed, Objective 2 states that this is "critical" to the success of the policy and according to Objective 3 best practice methodologies use agrichemicals "if non-chemical methods are not practical or adequate at achieving the necessary level of control."⁵ Additionally it is noted under Objective 5 that public health and safety can be maximized by " ... using non-chemical techniques whenever they are available and effective. Chemical herbicides, in other words, are the method of last resort, not the preferred or typical method, as is stated in AT's vegetation control specifications for the new contracts."⁶

WMA also points out that it has been demonstrated in practice over the past fifteen years that non-chemical methods are "practical and adequate, and available and effective." The legacy Auckland and North Shore City operations have successfully controlled roadside vegetation with various combinations of hot water, steam, line trimmers and plant-based herbicides, and over one million of

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Auckland Council's 1.5 million residents continue to enjoy this non-chemical weed control. WMA considers it highly unjust that the remaining population should continue to be exposed to the adverse human health and environmental impacts of chemical sprays based solely on where they live.

Human Rights Norms of Concern

Environmental issues often directly impact human rights, and the purpose of this Report is to help Auckland Transport and the Weed Management Advisory understand the human rights dimensions of AT's roadside spray programme. As Daniel Taillant, Director of the Argentina-based Center for Human Rights and the Environment says, "Everything and anything that influences the environment directly influences our human condition, and a violation of the environment is a violation of our human rights."⁷

Human rights standards apply to individuals, not just to communities or majorities. This means that if even one or two persons' rights are violated, then human rights violations have occurred.⁸ Most of the following rights are grounded in legal authority, both domestic and international, and all of them carry the weight of moral authority.

Human rights standards are normally recognized as trumping other policy considerations; i.e. "right-holders are authorized to make special claims that ordinarily 'trump' utility, social policy, and other moral or political grounds for action."⁹ Additionally, human rights norms represent a moral minimum for behavior of governments, a moral floor beneath which state actions must not fall.¹⁰

Listed below are 23 specific human rights norms that may have direct relevance to AT's road corridor spray programme. These norms can be found articulated in several different human rights declarations, conventions, charters and other international instruments, including:

- *Universal Declaration of Human Rights (UDHR)*¹¹
- *International Covenant on Civil and Political Rights (CCPR)*¹²
- *International Covenant on Economic, Social and Cultural Rights (CESCR)*¹³
- *Convention on the Rights of the Child (1990) (CRC)*¹⁴
- *Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)*¹⁵
- *Rio Declaration on Environment and Development*
- *The World Health Organization Declaration of Alma Ata*¹⁶
- *The Nuremberg Code*¹⁷

The first three documents above, *UDHR*, *CCPR* and *CESCR*, are usually considered primary and are commonly referred to as the international bill of human rights.¹⁸

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1. Right to life, liberty and security of person.

Articulated in

UDHR Article 3

"Everyone has the right to life, liberty and security of person."

CCPR Article 9

"Everyone has the right to liberty and security of person."

UDHR Article 13

"(1) Everyone has the right to freedom of movement and residence within the borders of each State."

What this right entails

This is the right to bodily integrity and to be safe and secure in one's person.

The right to liberty entails the freedom to move about within the boundaries of one's state.

Reasons for concern

- Reports of adverse physical health effects related to roadside chemical exposures.
- Adverse health effects attributable to exposures to agrichemical sprays, drift and subsequent volatilization include respiratory, cardiovascular, dermal, metabolic and neurologic effects, cancers, and miscarriages, birth anomalies and developmental effects, particularly for pregnancies conceived or carried during periods of exposure.
- If any citizens consider their freedom of movement to be restricted due to their need to avoid roadside chemical applications, particularly if those restrictions result in documentable economic loss or educational opportunity, that would be a concern.
- If any citizens consider that threat of injury from spray exposures will require them to move from their current place of residence, place of work or educational establishment, particularly if that would result in documentable economic loss, that would be a concern.

2. Right to privacy and home

Articulated in

UDHR Article 12

"No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence...."

CCPR Article 17

"No one shall be subjected to arbitrary or unlawful interference with his privacy, family, home or correspondence."

What this right entails

This entails the right to be secure in your home, to be able to enjoy the use of your property and to not have one's property devalued as a result of state actions.

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"The European Human Rights Court noted that severe environmental pollution may affect individuals' well-being and prevent them from enjoying their homes in such a way as to affect their private and family life adversely, without, however, seriously endangering their health."¹⁹

This means that adverse health effects are not the only kind of adverse effects that violate the right to one's property and home.

Reasons for concern

- Discomfort experienced at home, or compromised ability to enjoy one's home and property due to exposure to roadside agrichemical sprays, drift, residues or subsequent volatilization, even without adverse health effects.
- Chemical contamination of food gardens and roofs is a not insignificant health or economic concern, especially if homes rely on rainwater collection for potable water.
- Potential adverse physical health effects related to roadside agrichemicals and suffered in the home.

3. The family's right to protection

Articulated in

CCPR Article 23

"The family is the natural and fundamental group unit of society and is entitled to protection by society and the State."

CESCR Article 10

"The widest possible protection and assistance should be accorded to the family, which is the natural and fundamental group unit of society, particularly for its establishment and while it is responsible for the care and education of dependent children."

What this right entails

This means that the health, strength, well-being and social integrity of families must be protected and supported; if these become compromised as a result of roadside chemical applications, drift or subsequent volatilization then this right has been violated.

Reasons for concern

- Adverse physical or economic effects on families attributable to roadside chemical applications, drift or subsequent volatilization.
- If the health or well being of families, including economic well being, have been adversely affected as a result of roadside sprays, drift or residues that would be a concern.

4. Right to property

Articulated in

UDHR Article 17

"No one shall be arbitrarily deprived of his property."

What this right entails

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See number 2 above regarding the right to privacy and home.

Reasons for concern

- Any adverse physical or economic impacts on property or property values attributable to roadside agrichemical applications, drift or subsequent volatilization.
- If individuals, families or businesses have been forced to leave or sell their property due to roadside sprays, drift or volatilization that would be a concern.
- If individuals' or families' ability to enjoy the use of their property has been compromised due to roadside applications, drift or volatilization that would be a concern.

5. Right to work

Articulated in

CESCR Article 6

"The States Parties to the present Covenant recognize the right to work, which includes the right of everyone to the opportunity to gain his living by work which he freely chooses or accepts, and will take appropriate steps to safeguard this right."

What this right entails

This right refers to the right to work and, by extension, the right to be able to transport oneself to work without being disabled along the way.

Reasons for concern

- Citizens who may become unable to work due to the effects of exposure to roadside applications, drift or volatilization.
- Citizens who may be unable to transport themselves to work due to their need to avoid exposure to roadside agrichemical applications, drift or residues
- If some citizens are unable to work or keep their jobs due to their need to avoid exposure to roadside applications, drift or volatilization that would be a concern.
- Workplaces that may become contaminated by roadside applications, drift or volatilization enough that some workers are unable to work or keep their jobs would be a concern.

6. Right to safe and healthy working conditions

Articulated in

CESCR Article 7

"States Parties to the present Covenant recognize the right of everyone to the enjoyment of just and favourable conditions of work which ensure...[s]afe and healthy working conditions"

What this right entails

This entails the right to a safe and healthy work environment.

Reasons for concern

- Adverse physical effects experienced in the workplace that are attributable to roadside chemical applications, drift or volatilization.

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- Any reports of workplace safety having been compromised as a result of roadside applications, drift or volatilization.
- Workplaces that may become contaminated by roadside agrichemical applications, drift or volatilization enough that some workers are unable to work or keep their jobs would be a concern.

7. Motherhood and childhood's right to special care

Articulated in

UDHR Article 25

"Motherhood and childhood are entitled to special care and assistance. All children...shall enjoy the same social protection."

CESCR Article 12 (section 2a)

establishes the obligation of states party to this Covenant to take steps to make "provision for the reduction of the stillbirth-rate and...infant mortality and for the healthy development of the child."

CRC Article 27

"1. States Parties recognize the right of every child to a standard of living adequate for the child's physical, mental, spiritual, moral and social development."

What this right entails

This is the right of children and their mothers to be provided special care, protection and assistance. This means that states have an affirmative duty to protect children and mothers from anything, including environmental toxics that may compromise the child's physical, mental, spiritual or social development.

Reasons for concern

- Research indicates that pregnant women, the unborn foetus, infants and children are at much greater risk of adverse health effects from exposure to agrichemicals because of their increased biological susceptibility.
- Research indicates that mother's breast milk may become contaminated with chemicals, which they then pass on to their suckling child at a time of developmental vulnerability.
- If mothers, and mothers' ability to be good caregivers for their children, are adversely affected by agrichemical applications, drift or volatilization, that would be a concern.

8. Duty to protect the child (i.e., persons under age 18):

Articulated in

CRC Article 19

"States Parties shall take all appropriate legislative, administrative, social and educational measures to protect the child from all forms of physical or mental violence, injury or abuse, neglect or negligent treatment, [or] maltreatment...."

CESCR Article ten (section three)

"Special measures of protection and assistance should be taken on behalf of all children and young persons without any discrimination for reasons of parentage or other conditions."²⁰

What this right entails

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This is the child's right to special protections, and the state's duty to provide special protections, from infliction of harm, including harm that could result from unavoidable exposures to environmental toxics.

Reasons for concern

- o See above.

9. Right of the child to the highest standard of health

Articulated in

CRC Article 24

"States Parties recognize the right of the child to the enjoyment of the highest attainable standard of health."

What this right entails

This is the right of children to live in safe and healthy conditions, including safe and healthy environmental conditions, and not to be forcibly exposed to conditions that adversely affect health.

Reasons for concern

- o Research indicates that children are at much greater risk than adults for adverse health effects from exposure to agrichemicals because of their increased biological susceptibility.
- o Adverse health effects attributable to exposures to these chemicals can include respiratory, cardiovascular, dermal, metabolic and neurologic effects and cancers, as well as miscarriages and birth anomalies, particularly for pregnancies conceived or carried during periods of exposure.
- o If a government (or council, or council controlled organisation) undertakes any activity that puts children at increased risk of adverse health effects, that is a concern.

10. Right of everyone to the highest standard of health

Articulated in

CESCR Article 12

"States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health."

What this right entails

This is the right to live in conditions conducive to the highest standard of health.

Reasons for concern

- o If a government (or council, or council controlled organisation), undertakes any activity that puts citizens at increased risk of adverse health effects, that is a concern.
- o Adverse health effects attributable to exposures to agrichemicals can include respiratory, cardiovascular, dermal, metabolic and neurologic effects and cancers, as well as miscarriages, birth anomalies and developmental effects, particularly for pregnancies conceived or carried during periods of exposure.

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- o Adverse psychological health effects attributable to roadside agrichemical exposures are also of concern.

11. State's duty to provide for the health of citizens

Articulated in

The Declaration of Alma-Ata, Article V

"Governments have a responsibility for the health of their people which can be fulfilled only by the provision of health and social measures."

What this right entails

This more clearly reframes the right to health as a duty of a government to its citizens to provide for the health of its citizens.

Reasons for concern

- o See above

12. State's duty to provide for the health of citizens demands coordinated efforts of all sectors

Articulated in

Declaration of Alma-Ata Article VII

[Provision of health measures includes,] "in addition to the health sector, all related sectors and aspects of national and community development, in particular agriculture, animal husbandry, food, industry, education, housing, public works, communications and other sectors; and demands the coordinated efforts of all those sectors."

What this entails

This article elucidates the meaning of "provision of health and social measures," explaining that the state's duty to provide the highest standard of health for its citizens extends beyond just the health sectors of governments; it involves all other sectors as well, including the responsibility to see that transportation, vegetation control and agricultural sectors are regulated in ways that are protective of citizens' health.

Reasons for concern

- o This article says that in addition to departments of health, all government departments, including departments of transportation, vegetation management, agriculture and other agencies that deal with agrichemicals and other potential health risks, also have a positive duty to protect the health of citizens.

13. Right to a healthy environment

Articulated in

Aarhus Convention Preamble

"every person has the right to live in an environment adequate to his or her health and well-being, and the duty, both individually and in association with others, to protect and improve the environment for the benefit of present and future generations."

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What this right entails

This is the right to live in an environment that is conducive to health.

Reasons for concern

- If roadside agrichemical applications, drift, residues or subsequent volatilization compromise the environment or cause conditions not conducive to health, even if those exposures affect the health of some people more than others that would a concern.

14. Duty to encourage school attendance

Articulated in

CRC Article 28, 1(e)

"[States Parties shall] Take measures to encourage regular attendance at schools."

What this right entails

If states are enjoined to take measures "to encourage regular attendance at schools," it follows that they are also required, *a fortiori*, to refrain from taking measures that make it difficult or impossible for students to attend school.

Reasons for concern

- If roadside sprays prevent any students from attending school or being transported to school due to their need to avoid agrichemical exposures that would be a concern
- If any student has been exposed to agrichemical drift or volatilization while waiting for school buses that would be a concern.
- If any school located near roadways has been affected enough that some students have been unable to attend or stay in school, that would be a concern

15. Right to education

Articulated in

CESCR Article 13 (section 1)

"States Parties to the present Covenant recognize the right of everyone to education."

Reasons for concern

- See above.

16. Right to effective remedy

Articulated in

CCPR Article 2(3)a

"Each State Party to the present Covenant undertakes: To ensure that any person whose rights or freedoms as herein recognized are violated shall have an effective remedy, notwithstanding that the violation has been committed by persons acting in an official capacity...."

What this right entails

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"The legal obligation to offer restitution for injury is as old as the Code of Hammurabi, the first formal set of laws in history."²¹ It is recognized both internationally and domestically that "one of the major, primordial functions of the law is to return the victims of an unjust act to their previous condition."²²

"Effective remedy" means that by judicial action, monetary compensation or some other means any person whose rights have been unjustly violated will be restored as much as possible to their previous condition.

The right to effective remedy would be violated if, despite attempts to convince or compel AT to significantly change its roadside agrichemical programme in a timely manner using normal democratic methods, the roadside spray programme were to continue.²³

Reasons for concern

- The potential for being required to pay monetary compensation should citizens be adversely impacted by roadside agrichemical sprays, drift, residues or volatilization would be a concern.

17. Right to compensation

Articulated in

In 1985 the U.N. General Assembly spelled out the nature of indemnification in the Declaration of Basic Principles of Justice for Victims of Crime and Abuses of Power. This declaration insists that "victims are entitled to prompt redress for the harm that they have suffered" and that offenders should "pay fair restitution to victims, their families and dependents."²⁴

What this right entails

"The basic moral law of every society asserts that a government which wrongly injures its own citizens must make them whole insofar as this is possible."²⁵

Reasons for concern

- Personal or business economic losses resulting from exposure to roadside agrichemical sprays, drift or residues would be a concern.
- Any other losses, especially those measurable in economic terms, would be a concern.

18. Right to know

Articulated in

The *Rio Declaration on Environment and Development* establishes citizens' right to information about environmental toxics to which they may be exposed.

Rio Declaration Principle 10

"Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available."

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Aarhus Convention Article 1

"each Party shall guarantee the rights of access to information, public participation in decision-making, and access to justice in environmental matters..."

What this right entails

This is the right of citizens to be provided full information about environmental issues so they can participate knowledgeably in decision-making about that issue. It entails the right to full disclosure of information about ingredients (both active and undisclosed "inert" ingredients), about details of spray plans, planned effectiveness studies, Health Risk Assessments, Environmental Impact Statements, planned (or lack of) health effects monitoring, etc.

Reasons for concern

- Despite manufacturers' claims that information about undisclosed ingredients is proprietary, precedents are emerging around the world in support of citizens' right to know the ingredients of chemical products to which they are exposed.
- The fact of spray drift is not insignificant. The problems of immediate drift and subsequent volatilization of residues all exacerbate human rights concerns primarily because of the larger number of persons who are impacted by the chemicals and who, because they may not be immediately adjacent to road shoulders, may be uninformed, unwarned and perhaps unconsenting.
- The fact of agrichemical contamination of rainfall is not insignificant. The return of residues in rainfall exacerbates human rights concern because this can occur well away from areas where the spraying has occurred including in areas managed non-chemically where people believe they are not being exposed.

19. Right to participation in decision-making in environmental issues

Articulated in

Rio Declaration Principle 10
Aarhus Convention Article 1
(see above)

Reasons for concern

- Have citizens had sufficient opportunity to participate effectively in decision-making about roadside herbicide use and policy?
- If citizens having had democratic access to the development of Auckland Council's Weed Management Policy were then unable to have democratic access to decision-making by AT in respect of its use of herbicides contrary to that policy, that would be a concern.

20. Right to equal protection of the law

Articulated in

CCPR Article 26
"All persons are equal before the law and are entitled without any discrimination to the equal protection of the law. In this respect, the law shall prohibit any discrimination and guarantee to all persons equal and effective protection against discrimination on any ground..."

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What this right entails

This means that discrimination against persons and classes is proscribed.

According to the 1993 Human Rights Act, people in New Zealand are protected against discrimination, and "discrimination takes place when a person is treated less favourably than another person in the same or similar circumstances."²⁶

In addition, the basic principles of environmental justice require that those communities that are disadvantaged in any way – socially, economically, as a result of discriminatory racial policies, etc., or that simply have less ready access to resources – be accorded the same degree of respect, fair treatment and opportunity for meaningful involvement in decision-making as communities that are more socially or economically advantaged and have greater access to resources. As explained on the USA Environmental Protection Agency website "Fair treatment means that no group of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of...negative environmental consequences."²⁷

Reasons for concern

- If all communities are not treated equally in the vegetation control programme, regardless of perceived social privilege or socioeconomic status, that would be a concern.
- If the socio-economic makeup of communities appears to be a factor in any decisions made by the vegetation control programme, that would be a concern.
- If disadvantaged communities are affected any differently than more privileged communities, that would be a concern.
- If communities with different racial compositions are affected differently, that would be a concern.

21. Right to freedom from discrimination due to disability

Articulated In

The United Nations Convention on the Rights of Persons with Disabilities (the Disability Convention); NZ Human Rights Act 1993

What this right entails

The New Zealand Human Rights Commission²⁸ maintains a website with detailed information about disability rights; in general the law requires that everyone who has, or is perceived to have, a disability not be discriminated against in any way.

The website notes that it is unlawful to discriminate on the basis of disability in any of the areas of public life covered by the Human Rights Act. "[A] person cannot be discriminated against by the central government on any of the grounds of unlawful discrimination. This includes action by Parliament, government ministries and departments, and the judiciary. It also includes any person or body that performs a public function conferred by law, such as schools providing public education or actions carried out by local bodies. It covers most central and local government activity."

Reasons for concern

- Discrimination occurs when any sub-group is disproportionately impacted by a policy or practice and no sufficient accommodations are made for them. Individuals with asthma or other respiratory conditions, chemically sensitive persons, pesticide

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sensitive persons, people with various allergies, people with compromised liver function, immunocompromised people, the elderly, the very young, pregnant women,²⁹ any place-bound persons (in hospitals or elder care facilities near roadways, for example), to name a few vulnerable sub-sets of residents, may be reasonably expected to experience more serious adverse effects from agrichemical exposures.

- If reasonable accommodations have not been developed for persons in those groups to help them avoid being unfairly impacted by the sprays, that would be a concern.

22. Right of experimental subjects to free and informed consent

Articulated in

Nuremberg Code Item 1

"The voluntary consent of the human subject is absolutely essential."

Nuremberg Code Item 9

"the human subject should be at liberty to bring the experiment to an end if he has reached the physical or mental state where continuation of the experiment seems to him to be impossible."

What this right entails

This is the right to be fully informed about an experiment before agreeing to participate, the freedom to choose whether to participate or not, and the freedom to withdraw from the experiment at any time.

The rights of experimental subjects to informed consent and to protection from possible harms, at least as they are expressed in *The Nuremberg Code*, are premised on the acknowledgment that the practice of long term application of these roadside agrichemical formulations contains important unknowns as regards health effects and is at least partially experimental.

Reasons for concern

- The exposure of people to chemicals with uncertain outcomes to their health constitutes an experiment.
- Citizens in this experiment not provided with documented opportunity to give or withhold consent for exposure to roadside chemicals, drift and volatilization would be a concern.
- Failure to provide citizens with ways to withdraw themselves or their families from spray exposures if they wish to not be exposed would be a concern.
- Failure to notify citizens, particularly those with certain disabilities, about details of roadside sprays to which they may be exposed and to provide alternative routes where they will not be exposed would be a concern.

23. Right of experimental subjects to be protected from injury, disability or death

Articulated in

Nuremberg Code Item 7

"Proper preparations should be made and adequate facilities provided to protect the experimental subject against even remote possibilities of injury, disability, or death."

What this right entails

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This is the right to be protected from anticipated, remote or unanticipated harms that may possibly result from participation in the experiment.

Reasons for concern

- Have such protections been provided, particularly for those at increased risk of harm from agrichemical exposure?

Potential Liabilities

Listed below are some liabilities AT may incur with respect to its use of chemical herbicides on the road corridors it maintains.

1. The potential consequences of governments ignoring human rights norms are not insignificant. Loss of public confidence in government agencies and their processes is not a small thing, even from the perspective of the agency, and even when viewed through the lens of basic practicality. When human rights standards are compromised the consequences can be monumental, costly and long lasting.
2. If the vegetation management programme made no improvements there would be risk of public recognition that, despite awareness of links between agrichemical exposure and human health impacts and despite awareness of human rights concerns, AT did not move in a timely manner to significantly modify their practices.
3. Greater involvement of human rights organizations such as Human Rights Watch in pesticide activism.
4. One goal of human rights activism is "the mobilization of shame." Tools human rights organizations use include, among others, videotaping of actions considered to be human rights violations and of the persons believed responsible for those actions; distributing those videos widely on social media; public, community-led, Citizens' Tribunals with independent judges who weigh, using human rights norms rather than civil law, the justness of a given situation; and public, community-led, Citizens' Inquiries which involve oral and written testimony from affected community members before a panel of commissioners.
5. Potentially costly legal actions via the NZ Human Rights Commission brought by persons with disabilities (such as asthma, pesticide intolerances, cardiac arrhythmias, etc.) for failure to accommodate; possible legal actions for knowingly exposing people to widespread, broadcast use of agrichemicals on roadsides; and possible multiple small claims court actions for economic redress.

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Recommended Measures to Reduce Liabilities

1. The most important measure to reduce liabilities would be for AT -- as specified in the ACWMP -- to use only non-chemical means of vegetation control where practical and adequate, available and effective.
2. As a first step AT should initiate good faith discussions with the Weed Management Advisory and other relevant community groups and elected representatives concerned about roadside spray policy and practice with a view to timely implementation of the ACWMP.
3. If agrichemical use cannot be avoided, AT should:
 - a. Provide notification by multiple means – signage, email lists, websites, phone calls, etc. – especially to those individuals susceptible to or concerned about adverse health impacts.
 - b. Include in all public notification announcements a full disclosure of all precautions included on the labels of products that will be applied, and links to an official website where the full label can be viewed.
 - c. Provide evidence of the necessity for the spray, i.e. what nonchemical methods have been trialed and where, and in what ways they have proved inadequate.
 - d. Provide evidence of what steps will be taken to ensure spray use is minimized.
 - e. Provide evidence of safety:
 - i. Provide examples of large scale, large sample, well designed population studies undertaken by third parties (i.e., not pesticide manufacturers or agriculture/forestry interests) published in the peer reviewed scientific literature that demonstrate no adverse effects from exposure to the active ingredients and formulations that are being, or will be used.
 - ii. Absent such studies, provide examples of any studies published in the peer reviewed literature that demonstrate no adverse effects from exposing urban populations to the active ingredients and formulations that are being used or will be used.
 - iii. Absent that, provide examples of any studies that show there to be no adverse effects from exposing urban populations to the active ingredients and formulations that are being used or will be used.
 - f. Publicly disclose all ingredients, both active and “inert,” of all agrichemical formulations that would be applied. (Despite objections by manufacturers,

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there is growing precedent for this around the world)

- g. Provide alternative routes of travel to those who choose to not expose themselves or their family members to agrichemical spray, drift and subsequent volatilization.
- h. Develop strategies for providing temporary alternative lodging, transportation and services to those who live or work adjacent to spray areas and who, for reasons of health or health concerns, require that they and their family members not be exposed to the agrichemical spray, drift and subsequent volatilization.
- i. Develop strategies for ensuring that placebound persons, such as those in daycare facilities, elder care facilities, hospitals, schools, etc, not be required to endure spray exposures if they wish not to.
- j. Provide alternative routes of travel for school buses and other modes of transporting children to school, as well as for transportation to daycare facilities, elder care facilities, hospitals, etc.
- k. Ensure that school bus stops and surrounds remain free of agrichemicals, drift and residues.
- l. Arrange for health effects monitoring studies to be undertaken by the Ministry of Health or independent third parties. Active (rather than passive) surveillance methodologies should monitor for a range of adverse health effects, both acute and chronic, associated with exposure to agrichemical spray, drift and residues. Representatives from citizen and community groups should be involved in the design of the studies.
- m. Arrange oversight by an external observer, agreed to by both AT and community organisations, to monitor implementation of the spray programme.

Conclusion:

This Report provides Auckland Transport and the Weed Management Advisory with a list of international human rights norms of concern regarding AT's road corridor vegetation management programme, outlines AT's potential liabilities and recommends measures AT should take to reduce those liabilities and meet its human rights obligations.

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Additional Resources

The Center for Human Rights and the Environment headquartered in Córdoba, Argentina. <http://www.cedha.org.ar>

The Global Network for the Study of Human Rights and the Environment based at Cardiff University.

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¹http://www.aucklandcouncil.govt.nz/EN/planspoliciesprojects/plansstrategies/Long_term_plan/Pages/documents.aspx

²*Submission 5143 to the Draft Auckland LTP 2012-2022 by the Weed Management Advisory*

³<http://www.aucklandcouncil.govt.nz/SiteCollectionDocuments/aboutcouncil/committees/environmentalsustainabilityforum/meetings/environmentalsustainabilityforum20120725.pdf>

⁴<http://www.aucklandcouncil.govt.nz/SiteCollectionDocuments/aboutcouncil/committees/regionaldevelopmentoperationscommittee/meetings/rdocmin20130815.pdf>

⁵<http://www.aucklandcouncil.govt.nz/en/planspoliciesprojects/councilpolicies/weedmanagementpolicy/Pages/home.aspx>

⁶ Auckland Transport Technical Specification, Volume 5 – 15000 Vegetation Control (sections 15700 & 15750) 19 December 2013

⁷ Picoletti, Romina and Jorge Daniel Taillant, *Linking Human Rights and the Environment*, University of Arizona Press, 2003, p 123 (emphasis in original).

⁸ "With the exception of the right to self-determination, all the rights in the *Universal Declaration* and the Covenants are the rights of individuals. Enumerations of rights thus typically begin 'Every human being...,' 'Every one has the right...,' 'No one shall be...,' 'Everyone is entitled...'" Jack Donnelly, Andrew Mellon Professor in the Graduate School of International Studies at the University of Denver, *Universal Human Rights in Theory and Practice*, Cornell University Press, 2002, p23.

⁹ Donnelly, *Universal Human Rights in Theory and Practice*, Cornell University Press, 2002, p8.

¹⁰ "Human rights are minimal standards. They are concerned with avoiding the terrible rather than with achieving the best. Their focus is protecting minimally good lives for all people." James Nickel, "Human Rights" in the *Stanford Encyclopedia of Philosophy*, 2006.

¹¹ The *Universal Declaration of Human Rights* was unanimously adopted by the United Nations in 1948.

¹² Signed by the US in 1977, ratified in 1992 and entered into force in 1992, though with reservations on articles 5-7, 10(2,3), 15(1), 19, 20, 27 and 47, and formal understandings on articles 2(1), 4(1), 7, 9(5), 14(3,6), 26. Ratification means that the provisions of this international instrument, aside from the reservations, do have the force of domestic law in the US.

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¹³ Signed by the US in 1977; not ratified.

¹⁴ Signed by the US in 1995; not ratified. Though the US has not ratified this convention, "One hundred and ninety states have agreed to become parties to the Convention on the Rights of the Child, giving it the distinction of being the most widely ratified treaty in the history of the world." Lauren, Paul Gordon, *The Evolution of International Human Rights*, University of Pennsylvania Press, Philadelphia, 2d ed, 2003, p 249.

¹⁵ Signed by the US in 1980; not ratified.

¹⁶ 1978

¹⁷ Rights enunciated in the 1947 *Nuremberg Code* are for the protection of individuals being studied in research protocols. If the case can be made that a population is being studied as research subjects – e.g., that persons living and working in the spray zone are being studied for health effects resulting from spray exposures – then provisions of the *Nuremberg Code* would apply to individuals in that population.

¹⁸ Many of the rights listed below have been articulated in several different human rights declarations, conventions or charters, but for simplicity's sake this Report lists only one or two instruments for each right.

¹⁹ This passage continues: "It found that the determination of whether this violation had occurred in *Lopez-Ostra v. Spain* should be tested by striking a fair balance between the interest of the town's economic well-being and the applicant's effective enjoyment of her right to respect for her home and her private and family life. In doing this, the Court applied its "margin of appreciation" doctrine, allowing the State a "certain" discretion in determining the appropriate balance, but finding in this case that the margin of appreciation had been exceeded. It awarded Mrs Lopez-Ostra 4,000,000 pesetas [approximately US\$35,600], plus costs and attorneys' fees." Shelton, Dinah, "The Environmental Jurisprudence of International Human Rights Tribunals," in Picolotti, R and Taillant, JD, 2003, p 15.

²⁰ See item 21 below on discrimination.

²¹ Drinan, Robert F, *The Mobilization of Shame, A World View of Human Rights*. Yale University Press, 2001 p 186.

²² Drinan RF. 2001. p 170.

²³ In reference to a specific case: "the human right to effective judicial remedy has been violated because despite the riverside communities' plea to the judicial system, nothing has been done to stop the contamination." in Picolotti, R and Taillant, JD, 2003, p 146.

²⁴ Drinan RF. 2001. p 171.

²⁵ Drinan RF. 2001. p 187.

²⁶ Ministry of Justice website. <http://www.justice.govt.nz/policy/constitutional-law-and-human-rights/human-rights/domestic-human-rights-protection>. Accessed 9-26-14.

²⁷ US EPA's definition of environmental justice. See <http://www.epa.gov/compliance/resources/faqs/ej/index.html> Quoted in Robert D Bullard, *The Quest for Environmental Justice: Human Rights and the Politics of Pollution*, Sierra Club Books, San Francisco, 2005, p. 4.

²⁸ <http://www.hrc.co.nz/>

²⁹ In this regard, see provisions in the *Convention on the Elimination of All Forms of Discrimination against Women*.

Auckland Council Weed Management Policy for parks and open spaces

15 August 2013

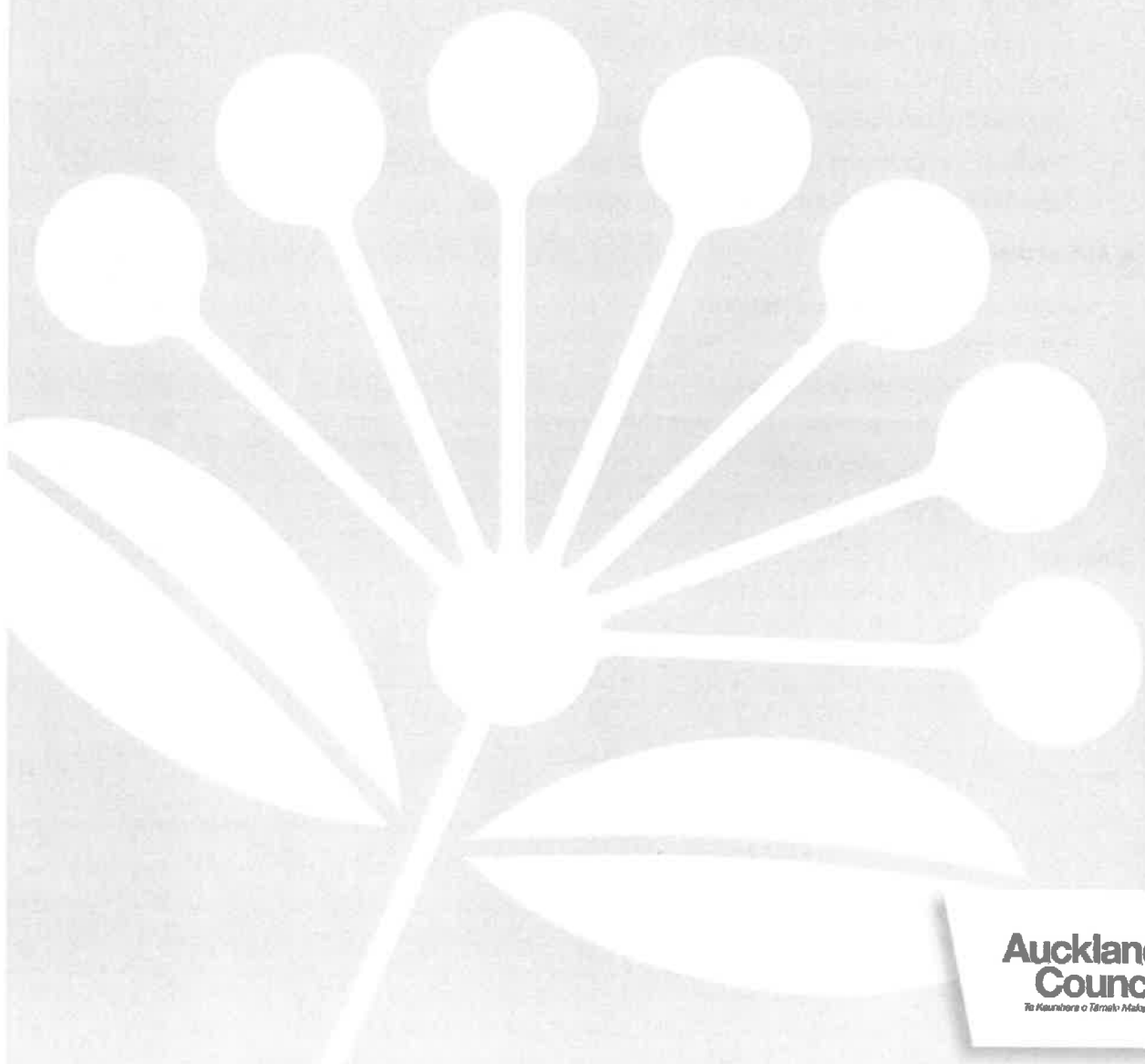


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1. Introduction

1.1. Development of the Auckland Council Weed Management Policy

We have developed this weed management policy to guide the management of weeds in Auckland's parks and open spaces, including the road corridor.

The policy does not intend to prescribe when and where Auckland Council or Auckland Council controlled organisations (CCOs) can undertake weed management, nor does it provide a basis for authorising weed management operations to be undertaken in any specific circumstances or location. We will make these decisions based on management aspirations, statutory requirements, agreed levels of service and operational policies and guidelines. In some instances, the applicant may need specific approvals before taking on such work (e.g. resource consent). This policy does not remove the need for applicants to obtain all the appropriate approvals before they can undertake weed management operations.

The policy will help deliver the strategic priorities of the Auckland Council's Parks and Open Spaces Strategic Action Plan 2013 and will also support the strategic outcomes of the Auckland Plan and the priorities identified in the 21 local board plans.

While the weed management policy is a non-statutory document, there are a range of regulatory tools that will be used to implement the policy vision and objectives. These include the Unitary Plan, the Auckland Council Regional Plan: Coastal and the Auckland Regional Pest Management Strategy 2007-2012 (RPMS) or its successors.

We have developed this weed management policy following a review of weed management policies developed by the legacy councils, national and international best practice, current trends in weed management, and iwi, stakeholder and public consultation.

Together with the development of the weed management policy, Auckland Council is undertaking a weed management operational review. This will include a review of current weed management operational approaches, practices and costs, consider alternative approaches and their financial implications, and resulting changes to levels of service. The output of the operational review will be a weed management policy implementation plan.

1.2. What we mean by a weed

Different plant species may be considered a weed in different locations, often depending on land use or the environment in which it is growing. This is why we have adopted a broad definition of weeds for the purposes of the Auckland Council Weed Management Policy.

For the purposes of this policy, a weed is defined as any plant growing where it is not wanted and which has an adverse effect as defined within the policy.

In the context of this policy weeds include, but are not limited to, pest plants identified in the RPMS or its successors.

To be considered a weed, as defined by this policy, a plant needs to be growing in the wrong place and having an adverse effect on people, Māori cultural values, infrastructure, other built assets or the natural environment.

Adverse effects include where plants are:

- competing with and/or displacing native vegetation or planted exotic species, either directly or through habitat modification
- negatively impacting, or having the potential to negatively impact, on indigenous flora, fauna, ecosystems or ecosystem processes
- presenting an invasion risk to other parts of Auckland as defined by its pest plant status in the RPMS or its successors
- damaging infrastructure, increasing maintenance costs and reducing its lifespan
- negatively impacting on system performance (e.g. impeding the flow of stormwater resulting in flooding)
- reducing the usability of sports parks and turf areas
- damaging heritage sites
- conflicting with Māori values
- negatively impacting on human health.

A plant may be considered to be in the wrong place, but if it does not have an adverse effect as defined by this policy it will not be considered a weed in that specific location or context unless the species is identified as a pest plant in that location within the RPMS or its successors.

This includes, as an example, trees and shrubs which are considered to be obstructing views, overgrowing walkways or interfering with the transport functions and/or safe operation of the road corridor. Decisions regarding what, if any, action is appropriate in such circumstances is controlled by operational policies and guidelines, tree protection rules, requirements for resource consent for vegetation removal, rules of the Unitary Plan or other legislative requirements. The weed management policy does not and, as a non-statutory document, cannot supersede such requirements.

In some circumstances, plants identified as weeds in a particular location may not be removed or only partially controlled if there is some tangible benefit in retaining them (e.g. erosion prevention). However, this must be weighed up against the current or future adverse effects of their presence.

The weed management policy recognises that weed management also encompasses a broader definition of vegetation control. In the road corridors and street environments this includes the control of grass verge edges where growth occurs over footpaths, kerbs and channels, and drainage culverts. There are differences between urban and rural road environments in terms of their roadside vegetation and the needs and

potential options for weed and vegetation control. This means that we need different approaches to weed and vegetation management. In parks, vegetation control includes edging of turf areas where vegetation grows up against hard surfaces such as paths, buildings and furniture, as well as edge control around gardens. Weed management in parks encompasses weed control in gardens, sports fields, and pest plant control in native bush and natural areas.

1.3. What we mean by parks and open spaces

We have developed the weed management policy to guide the prevention and management of weeds and the control of vegetation within all parks and open spaces owned or administered by Auckland Council or its CCOs. Parks and open spaces include: parks and reserves, cemeteries, road corridors, public transport facilities, public walkways, civic spaces, riparian margins, wetlands, beaches, volcanic landscapes, and areas of wilderness and native forest.

1.4. Relationship of the Auckland Council Weed Management Policy to the Auckland Regional Pest Management Strategy 2007-2012

The RPMS was developed under the Biosecurity Act 1993 and provides the statutory framework for the efficient and effective management of plant and animal pests in the Auckland region.

The RPMS lists 192 introduced pest plants that meet the criteria for inclusion in the document. Each pest plant is considered capable of causing serious adverse effects to people or the environment and has passed a cost-benefit analysis for control. The RPMS specifies the responsibility for management, be this eradication by the council (Total Control Pest Plants), control by landowners in certain locations (Containment Pest Plants) or restrictions on sale and distribution (Surveillance Pest Plants).

Our weed management policy applies to the management of all pest plants listed in the RPMS. It also provides a policy direction for the management of other plants, which although not considered such a significant threat as to be included in the RPMS, are considered weeds as defined by this policy.

The council has decided to approve a rollover of the RPMS, to take account of the requirements of the Biosecurity Law Reform Act 2012 and the consequent national policy direction from the minister. We anticipate that the review of the RPMS will start in 2013. The review will include full public and sector consultation.

The new document will be in the form of a regional pest management plan, rather than a strategy, in accordance with the amendments to the Biosecurity Act 1993 brought about by the Biosecurity Law Reform Act 2012. Once the review of the RPMS has been completed and it is superseded by a regional pest management plan our weed management policy will apply to the management of all pest plants listed in the new plan or its successors.

1.5. Responsibility for the Auckland Council Weed Management Policy

Auckland Council is responsible for the development and implementation of the weed management policy.

The policy applies to all land owned or administered by Auckland Council and its CCOs. All council and CCOs staff and contractors will be required to adhere to the policy.

Weed management on private land and other public land not owned or administered by Auckland Council or its CCOs is outside of the scope of the weed management policy. However, the policy will influence and empower others to take action on their land to prevent the establishment of weeds, to effectively manage their control and to stop them spreading to other locations.

Weed spread occurs at the landscape scale, so weed management must also happen at that scale. To achieve this, we must foster a coordinated and cooperative approach to weed management.

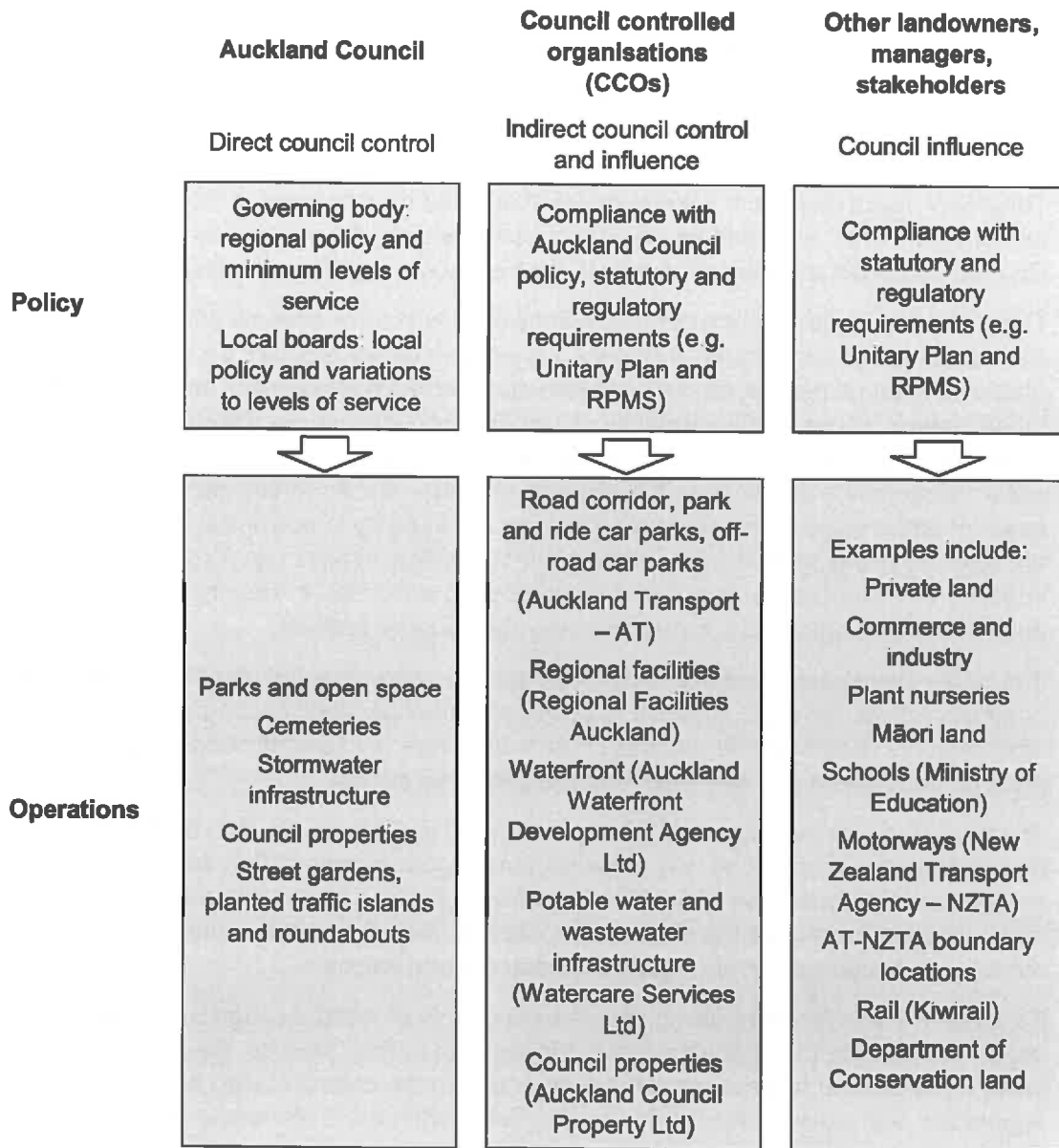


Figure 1. The different roles and responsibilities of Auckland Council, its CCOs and other landowners for weed management across the Auckland Region and the level of control and/or influence the council has over the various parties.

2. Vision statement

The vision of the weed management policy is as follows.

Working together to reduce the adverse effects of weeds and their management on people and the environment.

The policy vision statement acknowledges that weed management is the collective responsibility of all Aucklanders and that a partnership approach between Auckland Council, its CCOs and the community is the best way to achieve the desired outcomes.

The policy vision statement recognises that weeds can have adverse effects on Auckland's people and the environment. Weeds can cause allergies and health problems in some people, damage infrastructure, affect heritage sites and impact on Māori cultural values, reduce amenity values in public spaces, negatively impact on sports fields and other playing surfaces (including artificial turf), increase the cost of asset maintenance and shorten the lifespan of assets. Exotic weeds can also invade areas of native vegetation, adversely affecting the integrity of ecological systems and the diversity of indigenous flora and fauna in our region. Weeds can also adversely impact on the rural production sector by competing with trees in forestry plantations, horticultural and agricultural crops and desirable pasture species.

The policy vision statement also acknowledges that weed management and vegetation control practices have the potential to adversely affect peoples' health and that of the environment. Therefore, the process of managing weeds and controlling vegetation must be undertaken in a way that minimises adverse effects.

We must also acknowledge that Māori place great significance on both the physical and spiritual environment by way of kaitiakitanga (guardianship). This document recognises the importance of Auckland Council working in partnership with Auckland's mana whenua to achieve the aims of the policy, as weeds and the methods used to manage them can negatively impact on Māori cultural values.

To achieve the vision of reducing the adverse effects of weed management and vegetation control, this policy promotes the concept of best practice. Best practice weed management takes an integrated approach to the control of weeds and vegetation, and uses methods that have the least potential to adversely affect human health and the environment while achieving the desired outcome.

3. Objectives

The objectives of the weed management policy are as follows.

1. **Take an integrated approach to weed management and vegetation control**
2. **Ensure best practice in weed management and vegetation control**
3. **Minimise agrichemical use**
4. **Minimise non-target effects of agrichemical use**
5. **Ensure public health and safety**
6. **Protect and enhance the environment**
7. **Empower the community to manage weeds in accordance with the policy**
8. **Deliver weed management and vegetation control which is value for money**

Auckland Council and its CCOs must consider all eight objectives when determining options for weed management and vegetation control.

Objective 1. Take an integrated approach to weed management and vegetation control

An integrated approach involves the use of a range of different techniques to effectively prevent and manage weeds and control vegetation. This requires taking a site-led approach, tailoring management and control to address the specific plant species and site conditions at a particular location.

An integrated approach would include the following.

- **Prevention** – Methods for preventing and/or reducing the establishment of weeds, including: biosecurity at borders; best practice weed hygiene to prevent spread by people and machinery, including appropriate transportation and disposal of weeds through the waste management system; designing infrastructure with regard to reducing or eliminating sites for weed establishment; using native or non-weedy exotic plant species in amenity plantings and appropriate land management practices (e.g. revegetation of weed-infested riparian margins with appropriate native plant species to suppress exotic weeds).
- **Control** – Methods for the effective control of established weeds, including: manual control using hand tools, mechanical control (e.g. mowing, slashing, felling, frequent grading of unsealed roads), biological control using selected invertebrates or pathogens, habitat modification to remove establishment sites, trialling and adopting new technologies and the judicious use of herbicides.

Control methods used should reflect current best practice to achieve the desired outcome.

- **Education** – Training of council and CCOs staff and contractors on the full range of effective weed management and vegetation control techniques in keeping with current best practice. This also includes the role of public education, engagement, advocacy and support, specifically including mana whenua, to encourage effective weed management on land not owned or managed by the council or CCOs.
- **Restoration** – Ecosystem restoration and the wider use of native plants, including species for rongoa (medicine), mahi toi (arts and crafts) and kai (food) where appropriate.
- **Cooperation** – Facilitating inter-agency cooperation to prevent, control and eradicate weed species. Encouraging partnerships between the council, mana whenua, relevant stakeholders and the community.

Objective 2. Ensure best practice in weed management and vegetation control

Ensuring the integrated use of current best practice methodologies in the prevention and management of weeds is critical to the success of the weed management policy.

Best practice weed control requires constant research to keep up to date with evolving weed management techniques, both locally and internationally, and continual innovation to achieve effective, efficient and sustainable outcomes. The best practice approach needs cooperation and sharing of information between Auckland Council and its CCOs, other agencies and organisations, stakeholder groups, businesses and the public.

Auckland Council and its CCOs will set a best practice example for weed management on the land they own or administer. This includes managing the environment to reduce or eliminate habitat for weed establishment and selecting appropriate control techniques that minimise resource use and adverse environmental effects. The council will also ensure it is a good neighbour by managing weeds on land it owns or administers in a way that prevents adverse effects on adjacent land.

Objective 3. Minimise agrichemical use

This objective recognises that agrichemicals can be harmful to human health and the environment. It also recognises international best practice in integrated management of pests, including weeds, in which agrichemicals are used if non-chemical methods are not practical or adequate at achieving the necessary level of control.

The goal of minimising agrichemical use reflects national and international trends aimed at promoting environmental sustainability while still achieving desired weed control outcomes. To this end, the council and its CCOs will work to promote innovation

and continual revision of weed management practices to maximise efficiency and effectiveness while minimising the use and adverse effects of agrichemicals. The simplest way of achieving an overall reduction in agrichemical use is through restrictions on the application of chemicals in specific areas or at specific times. Reduction of agrichemical use may require changes to existing levels of service but this may be acceptable if stakeholders and the public are educated as to the relative benefits and cost-savings achieved.

Objective 4. Minimise non-target effects of agrichemical use

Agrichemicals can be a valuable tool for the management of weeds; where they are used, it is vital that non-target impacts are minimised, and wherever possible, eliminated.

Non-target impacts can be minimised through the use of targeted application methods such as cutting tall vegetation prior to spraying; or cutting and painting, drilling and injecting, or spot spraying of herbicide; rather than broadcast application. Where appropriate, the use of low toxicity herbicides or selective herbicides can be effective in reducing non-target impacts. The selection of herbicides and additives (e.g. dyes, stickers or surfactants) needs to carefully consider their suitability, including efficacy and relative toxicity, with respect to the situation in which they are to be used and the desired outcome.

In New Zealand, NZS 8409:2004 Management of Agrichemicals is the industry standard for the use of agrichemicals and sets minimum health and safety and training requirements for contractors and staff applying chemicals. This weed management policy considers NZS 8409:2004 to be the minimum standard. The council and its CCOs will further minimise non-target effects of their weed management and vegetation control operations through ongoing research and development and continual review of best practice guidelines.

Objective 5. Ensure public health and safety

Herbicides and their use are subject to legislation to protect public health and the environment, including: Resource Management Act 1991, Hazardous Substances and New Organisms Act 1996, Agricultural Compounds and Veterinary Medicines Act 1992, the RPMS and the Land Transport Rule: Dangerous Goods 2005.

Additionally, Auckland Council and its CCOs have obligations under the Health and Safety in Employment Act 1992 and other legislation to ensure the safety of its staff, contractors and the public when undertaking weed management in public open space.

Therefore, any agreements with external parties or the public to manage weeds on land owned or administered by the council or its CCOs must acknowledge this and safeguard them from undue risk.

Public health and safety can be maximised through:

- appropriate training for Auckland Council and CCOs staff, contractors and volunteers, including the requirement for anyone applying agrichemicals to obtain GrowSafe certification
- careful selection of appropriate weed management and vegetation control techniques and using non-chemical techniques whenever they are available and effective
- adherence to industry best practice by Auckland Council and CCOs staff, contractors and volunteers, noting that national standards such as NZS 8409:2004 Management of Agrichemicals set a minimum requirement, including:
 - notification of the use of agrichemicals in open spaces including effective notification in local newspapers and signage where agrichemicals are being applied (Auckland Council currently publishes spraying schedules for parks in local newspapers)
 - use of the lowest toxicity herbicide and additives (e.g. dyes, stickers, surfactants) to effectively achieve the desired outcome
 - providing the ability for the public to opt-out of chemical weed control on the boundary of their properties (e.g. No Spray Register: Auckland Council and CCOs staff, contractors and volunteers ensure non-chemical maintenance is carried out adjoining the registrant's property and the registrant commits to manage weeds and control vegetation to a specified standard)
 - providing effective notification of relevant agrichemical use to those on the No Spray Register who have requested to be notified
 - noting sensitive areas or locations, including schools, childcare centres, hospitals, rest homes, public places and amenity areas where people congregate, beehives, sensitive crops or farming systems (e.g. certified organic properties), public roads and times (e.g. when pupils are walking to or from school or there is an event taking place on a park). Auckland Council and its CCOs cannot be expected to know the whereabouts of all such facilities so we rely on their owners, occupiers, or operators to notify us and our CCOs of their existence or to arrange their inclusion on the No Spray Register).

Removing weeds can increase public safety by contributing to security and/or sight lines within public parkland, along public walkways or pathways and within the road corridor. Public health can be enhanced by reducing the incidences of allergies and other health problems that are caused by some weed species.

Objective 6. Protect and enhance the environment

Weeds can have adverse effects on both the natural and the built environment. Weed management and/or vegetation control is often necessary as part of routine asset

maintenance to protect infrastructure from damage and to maintain the quality and functionality of parks and other open spaces.

Weeds have the ability to out-compete desired plant species in both natural and planted areas. Over time, weeds can decrease indigenous ecosystem diversity through competition for establishment sites and other resources, and remove food sources and habitat for native birds, lizards, bats and invertebrates. Effective weed management is therefore essential to the conservation and enhancement of indigenous biodiversity.

As well as the impact of the weeds themselves, we must take care to avoid potential adverse environmental effects of the methods used to manage weeds, both immediate and long-term. Reducing non-target effects of weed management needs particular attention. This includes the adverse effects of spray drift, accidental removal of desired species or the contamination of soil and/or water. We must consider the positive and negative impacts on indigenous biodiversity, including the presence and location of native flora and fauna identified by the Department of Conservation as 'at-risk' or 'threatened' when deciding which weed management methodologies to employ at a site.

In some circumstances, weeds can provide beneficial functions in the form of habitat, environmental buffers, shelter, erosion control and shading for waterways. The retention or gradual replacement of exotic weed species can be particularly important in areas of low native biodiversity. However, we need to assess the potential adverse effects of weed retention on a site-by-site basis to ensure that the long-term protection and/or enhancement of indigenous biodiversity and ecosystems, including soil nutrient profiles, are not compromised for short-term gain.

Also, some locations, including sites of cultural significance, may require specific methods of weed management. Auckland Council and its CCOs recognise the kaitiaki role of mana whenua and will engage with them to determine appropriate management methodologies for such sites. Weed management must consider the heritage, botanical, amenity or other values provided by exotic species, including historic plantings and evaluate them in that context where appropriate.

Objective 7. Empower the community to manage weeds in accordance with the policy

Any effective long-term solution to managing weeds in Auckland must include measures to educate and empower the community to help, and in some instances lead, weed management across parks and open spaces. A lack of knowledge about specific weeds in Auckland can mean that people are unaware of the extent or implications of the weed problem. For those that can identify weeds, there is often misinformation about the most appropriate methods of control and particularly a lack of information on suitable non-chemical methods which are both practical and adequate at achieving the necessary level of control.

Empowering and partnering with the community provides an opportunity for local people to get involved in the care of parkland and roadsides. This includes local

management initiatives such as no-spray roads, through to the care of local parks by local people and volunteer groups, supported by the council.

Community education, advocacy and partnerships with mana whenua, relevant external organisations and stakeholders are an integral component of weed management. This is particularly important as Auckland Council and its CCOs manage only a small proportion of the region's land area. Educating the community will allow residential, industrial and commercial landowners to more effectively manage their land and will potentially reduce weed abundance across the region.

Encouraging adjoining property owners or occupiers to work together with the council's weed management endeavours is essential as weed re-infestation can occur on council-owned or administered land from seed sources on untreated neighbouring properties and vice versa.

Education can include changing peoples' perceptions of weeds and expectations of weed management. In some places, exotic plants perform beneficial functions and weed control may not be required. For example, weeds can sometimes provide valuable habitat for native animals (e.g. copper skinks, *Oligosoma aeneum*, use rank grass), act as a nursery for regenerating native forest (e.g. gorse, *Ulex europaeus*) and/or prevent other weed species from establishing and reduce overall maintenance requirements. Tree weeds can require staged removal while native trees are planted beneath them to gradually replace the weed species. In some countries, long grass on roadsides is acceptable and even encouraged as animal habitat. Changing peoples' perceptions of weeds can therefore deliver environmental benefits as well as cost savings in areas of low priority that can be transferred to target areas of higher priority.

Objective 8. Deliver weed management which is value for money

Auckland Council and its CCOs have a responsibility to ensure that ratepayers' money is spent wisely. Weed management and vegetation control is an operational expense and needs to be cost effective.

Achieving value for money requires that we do weed management and vegetation control as efficiently as possible while still being consistent with the objectives of the policy, and our responsibility to protect people and the environment. This places the responsibility on Auckland Council and its CCOs to ensure staff and contractors are appropriately trained and employ best practice. Weed management and vegetation control needs to be tailored to the specific site conditions and plant species under consideration. A blanket approach across all situations is inappropriate.

Weed management needs to consider the whole-life costs of the proposed methods. This includes the long-term effectiveness of the method, potential adverse effects on human health and the environment – including the toxicity and persistence of any chemicals used – and inputs of fossil fuels, personnel and other resources. Alternatives to existing management regimes will be considered as part of the implementation plan.

Changing current management practices and expectations of the extent to which weeds need to be managed can also deliver cost savings and value for money. We can

achieve this by managing weeds differently and changing public perceptions and expectations of what are acceptable levels of weed management or vegetation control.

Local schools, community groups, volunteers and Department of Corrections Community work groups also provide an opportunity for the council to develop partnerships with external parties. These partnerships can be mutually beneficial by helping educate the wider community about weeds while obtaining their help in managing them across the region with the added benefit of reducing the financial burden on the council and its CCOs.

4. Action plan

The policy action plan sets out the range of tasks and actions that we will carry out to implement the vision and objectives of the weed management policy. The action plan does not directly address issues relating to specific changes to current operational approaches. The operational review will inform a subsequent implementation plan which will outline recommended new approaches to weed management.

The actions have been grouped into six categories, as follows.

1. **Planning, policy and regulation**
2. **Operations**
3. **Identification and mapping**
4. **Governance, monitoring, research and reporting**
5. **Advocacy and education**
6. **Funding**

Action 1. Planning, policy and regulation

- 1a incorporate the vision and objectives of the weed management policy into the Unitary Plan, the review of the RPMS, and other relevant Auckland Council or CCOs plans, policies and strategies as they are developed or reviewed by providing appropriate input during the consultation phase
- 1b explore incentives and regulation within the Unitary Plan to manage and prevent weeds on privately owned land
- 1c during consent processing, encourage the use of appropriate species for amenity planting, street trees and restoration plantings on public and private land (e.g. practice notes for planners, approved species lists)
- 1d prepare and promote a 'weed watch' list which contains plant species not recommended to be planted
- 1e remove impediments to weed control on public and private land, including the need for resource consents to remove tree species identified as weeds by Auckland Council, but not necessarily listed as pest plants within the RPMS, no matter how large or where they are located
- 1f explore rationalisation of rules regarding pest plants, as defined by the RPMS or successor documents, listed in the Auckland District Plan 2010 or Unitary Plan as scheduled trees
- 1g work with our CCOs, Crown entities and other relevant organisations to ensure compliance with the weed management policy (e.g. statements of intent, memoranda of understanding and service level agreements).

Action 2. Operations

2a undertake an operational review to:

- catalogue existing weed management approaches
- clearly document costs, benefits and risks of existing weed management approaches
- identify alternative approaches and their implications, including costs and changes to levels of service in accordance with the objectives of this policy
- consider opportunities to change levels of service where plants are not causing, or have the potential to cause, adverse effects as defined by the policy
- enable the development of a clear policy implementation plan which will become part of all relevant contract management procedures

2b develop and maintain best practice guidelines for weed management and vegetation control

2c assist local boards in setting levels of service for weed management across local parks and open spaces which align with the vision and objectives of the weed management policy by providing relevant technical assistance to inform decision-making

2d enable the development of a regional level of service which Auckland Council's CCOs can incorporate into their statutorily required statements of intent

2e include all weed management policy objectives within weed management and/or vegetation control contracts by reviewing and amending contracts where appropriate. This will include incorporating best practice methods into all weed management and/or vegetation control documents and contracts

2f effectively manage the council's contractors to ensure adherence with approved best practice methods by making appropriate amendments to auditing specifications and procedures

2g develop an implementation plan based on the findings of the operational review.

Action 3. Identification and mapping

3a locate populations of Total Control Pest Plants and any new weed species incursions across the region, with the objective of eradication

3b collate and use existing significant ecological area information we hold to prioritise weed management across the region:

- to identify areas that require more intensive weed management to protect infrastructure, assets or the natural environment to enable appropriately targeted and cost-effective prioritisation of investment
- for sites of high ecological value, develop park-specific weed management plans, including the identification and mapping of weed infestations.

Action 4. Governance, monitoring, research and reporting

- 4a form a governance group which will oversee the implementation and delivery of the Weed Management Policy. This group will comprise of representatives from the governing body, local boards, the council, key staff, mana whenua and, potentially, relevant external parties to ensure robust decision-making which takes account of both community and technical considerations. Composition of the governance group and its exact functions will be determined by the governing body. The governance group will meet at least twice annually and will audit the performance of both the weed management policy and all relevant operational programmes
- 4b form a best practice reference group, which will report to the governing body and the governance group to ensure that the weed management policy and all operational programmes maintain international best practice. The best practice reference group will comprise senior technical staff from the council and its CCOs, relevant external parties and independent national and/or international experts. This group will meet periodically to recommend improvements to procedures and will maintain a presence on the Auckland Council website. Group members will be expected to keep up to date with relevant research and trends in weed management
- 4c liaise with and provide weed management information to the Research, Investigations and Monitoring Unit so that the council's published State of the Environment reporting can include data on the council's weed control methods, types and volumes of herbicides used and areas being managed
- 4d collaborate and undertake research on potential and actual weed species and weed management methods, including biological control, with the council's biosecurity staff, Landcare Research, private sector weed management practitioners and any other relevant parties
- 4e disseminate information on research and best practice to council staff, CCOs and contractors, relevant external organisations and stakeholders and the general public
- 4f access government funding for research where possible
- 4g together with our CCOs, trial alternative methods of weed management and, where successful, promote them internally and externally.

Action 5. Advocacy and education

- 5a support and/or work with volunteer groups to establish weeding and planting programmes to reduce weeds and weed habitat on public land**
- 5b develop initiatives around educating mana whenua and the public on how to eliminate weeds and prevent weeds establishing or re-establishing on their land, and provide information that encourages the planting of appropriate non-weedy, preferably native, plant species**
- 5c publicise the council's and its CCOs' weed management rationale and educate mana whenua and the public on the relative threats that weeds pose to change public perceptions and expected levels of service (e.g. long grass on roadsides may look messy but in some situations it may be the most environmentally sustainable and cost-effective way to manage that environment)**
- 5d encourage collaboration between existing weed control programmes and initiatives across Auckland to prevent and control weeds, improve ecological health and increase community participation in weed management operations**
- 5e assist local boards in advocating, partnering and supporting community initiatives and education, including mana whenua**
- 5f promote exemplary weed management on private and public land (e.g. through well-publicised environmental sustainability awards).**

Action 6. Funding

- 6a ensure that we provide appropriate budget and resourcing for us and our CCOs to implement this policy successfully**
- 6b provide funding and/or technical support for weed control by mana whenua, community groups, other relevant organisations and the public**
- 6c ensure that all recipients of council funding for weed management programmes adhere to council-approved best practice methods.**

Glossary

Term	Definition	Source
Agrichemical	Any substance, whether inorganic or organic, man-made or natural occurring, modified or in its original state, that is used in any agriculture, horticulture or related activity, to eradicate, modify or control flora and fauna.	New Zealand Standard 8409:2004, Appendix A.
Best Practice	A 'best practice' is a method or technique that has consistently shown results superior to those achieved with other means, and that is used as a benchmark. In addition, a 'best' practice can evolve to become better as improvements are discovered.	Wikipedia 16 May 2013 Retrieved from http://en.wikipedia.org/wiki/Best_practice
Containment Pest Plant	Refers to pest plants that landowners/occupiers are required to treat throughout or in defined areas of the region, or in boundary situations, as described in section 7 of the RPMS. Plants are to be treated by a recognised method, at intervals that ensure the pest plant is completely controlled or controlled to or from a stipulated distance from a property boundary.	Auckland Regional Pest Management Strategy 2007-2012
Health	In relation to human health, a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity.	Auckland Regional Pest Management Strategy 2007-2012
Herbicide	An agrichemical that is specifically designed to kill or eradicate unwanted plants.	New Zealand Standard 8409:2004, Appendix A.
Kaitiakitanga	The exercise of guardianship by the tangata whenua of an area in accordance with tikanga Maori in relation to natural and physical resources; and includes the ethic of stewardship.	Resource Management Act 1991
National Pest Plant Accord (NPPA)	The NPPA is a cooperative agreement between the Nursery and Garden Industry Association, regional councils and government departments with biosecurity responsibilities. All plants on the NPPA are unwanted organisms under the Biosecurity Act 1993. These plants cannot be sold, propagated or distributed in New Zealand.	National Pest Plant Accord 2012
Naturalise	Introduced plants that form self-sustaining populations outside cultivation, either through the production of viable seed or by vegetative reproduction.	Auckland Regional Pest Management Strategy 2007-2012
Parks and open spaces	For the purposes of this policy, parks and open spaces include: parks and reserves, cemeteries, road corridors, public transport facilities, public walkways, civic spaces, riparian margins, wetlands, beaches, volcanic landscapes, as well as areas of wilderness and native forest owned or administered by Auckland Council or its CCOs.	
Pest	An organism specified as a pest in a pest management plan.	Biosecurity Act 1993

Attachment 2- Submission from Weed Management Advisory on Road Corridor Vegetation Control

Pest Plant	<p>Introduced plants subject to control or restrictions under the RPMS. Includes Total Control Pest Plants, Containment Pest Plants, and Surveillance Pest Plants.</p> <p>Can also refer to species listed in the NPPA.</p>	Auckland Regional Pest Management Strategy 2007-2012
Plant	<p>Any grass, tree, shrub, flower, nursery stock, culture, vegetable, or other vegetation, and also includes the fruit, seed, spore, portion or product of any plant. Includes all aquatic plants.</p> <p>Note that algae and lichens are not considered plants for the purposes of this policy but the use of agrichemicals for their management shall be guided by the principles of this policy.</p>	Auckland Regional Pest Management Strategy 2007-2012
Surveillance Pest Plant	<p>Refers to pest plants for which there is no requirement prescribing control of field infestations, but for which the sale, propagation, distribution and exhibition has been prohibited, in order to arrest the further spread of these plants by humans, as described in section 8 of the RPMS.</p>	Auckland Regional Pest Management Strategy 2007-2012
Total Control Pest Plant	<p>Pest plants that are of limited distribution or density within the Auckland region, or defined areas of the region, and are considered to be of high potential threat to the region, for which Auckland Council and its CCOs shall assume responsibility for funding and implementing appropriate management programmes. The aim is to eradicate these plants.</p>	Auckland Regional Pest Management Strategy 2007-2012
Weed	<p>For the purposes of this policy, a weed is defined as any plant growing where it is not wanted and which has an adverse effect as defined within the policy.</p> <p>Therefore, whether a particular plant species (other than those identified as pests in the RPMS) is considered a weed is site and/or context-specific.</p>	