

The Proposed Auckland Unitary Plan (notified 30 September 2013)

GENETICALLY MODIFIED ORGANISMS

Drafting Note:

1. For the purpose of the facilitation session Councils track changes are provided with additions underlined and deleted text is in ~~strike through~~
2. Text in yellow shading records amendments that are considered to be outside the scope of submissions.
3. Numbering of this chapter will be reviewed as part of an overall review of the Unitary Plan numbering protocols.

PART 1 - INTRODUCTION AND STRATEGIC DIRECTION » Chapter B: Regional Policy Statement - Kupu Kaupapa ā-Rohe » 1

Issues

1.5 Sustainably managing our natural resources

Unitary Plan issue

We expect natural resources to be available on demand and to use our coastal resources for a wide variety of purposes. However, the combination of decades of urban expansion, high private vehicle usage, and other factors such as poor land and water management practices, have placed increasing pressure on our land and water, reduced air quality, and increased risks from flooding and land instability.

We need to sustainably manage the multiple values and pressures on our natural resources not only for Auckland's environmental well-being but also for our social, economic and cultural well-being.

Explanation

Maintaining, ~~restoring~~ and enhancing a high quality natural environment is important for our economic prosperity, tourism, and for making Auckland an attractive place to live and invest.

Economic development brings particular challenges for resource management in terms of both continuing to enable this development while addressing the environmental impacts of development. We need to make provision for development, significant infrastructure, regionally significant mineral extraction activities, wastewater disposal, stormwater and discharges to air. We have to manage natural resources such as water, aggregates, soil, and coastal resources in ways that minimise, appropriately avoid, remedy or mitigate the adverse impact on the environment and communities.

Comment [JW1]: Consequential from Topic 005 RPS Issues in the evidence of Linley Wilkinson.

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Genetically modified organisms

The outdoor use of genetically modified organisms could adversely affect our environment, economy and social and cultural resources and values. There is a lack of information, including scientific uncertainty, concerning the effects of GMOs in the environment and risks of irreversible adverse effects which could be substantial. We need to adopt a precautionary approach to managing the risks associated with the outdoor use of GMOs.

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6.6 Genetically Modified Organisms

Introduction

The outdoor use of genetically modified organisms (GMOs) carries risks of adversely affecting the environment, economy and social and cultural resources and values.

Comment [JW2]: Minor edit

Objective

1. The sustainable management of the natural and physical resources of Auckland with respect to the outdoor use of GMOs.

Policy

1. Adopt a precautionary approach, including adaptive responses, to the outdoor use of GMOs.

Methods

Regulatory

Unitary Plan:

- Auckland wide objectives, policies and rules for GMOs.

Non regulatory

- Promoting farming and land management practices that do not require the use of GMOs.

Explanation and reasons

Genetic modification (GM) refers to a set of techniques that alter genetic makeup by adding, deleting or moving genes (within or between species) to produce new and different organisms. Genetically modified organisms (GMOs) are products of genetic modification.

Comment [JW3]: Minor edit

The benefits of GMOs are continually being redefined as biotechnology advances. However, there remains scientific uncertainty of the potential adverse effects of GMOs on natural resources and ecosystems. The risks could be substantial and certain consequences irreversible. Once released into the environment, most GMOs would be very difficult to eradicate. If the GMO is related to a food product, the "GE Free" food producer status of Auckland would likely be permanently lost, along with any marketing advantages that status confers.

Comment [JW4]: Minor edit

The relevant legislation which applies to the management of GMOs in New Zealand is the Hazardous Substances and New Organisms Act 1996 (HSNO Act). The HSNO Act establishes the legal framework for assessments by the national regulator, the Environmental Protection Authority (EPA). This Act sets minimum standards and enables the EPA to set additional conditions for a particular GMO activity.

Councils also have jurisdiction under s. 30 and 31 of the RMA to control GMO field trials and the GMO releases of GMOs, to promote sustainable management. This enables gaps in the national regulatory regime for the management of GMOs to be addressed. In particular to:

Comment [JW5]: Minor edit to match the defined term.

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- ensure GM ~~operators~~ **consent holders** are financially accountable for the full costs associated with the GMO activity including unintentional contamination, clean-up, monitoring and remediation
- adopt a precautionary approach to manage potential risks (economic, environmental, social and cultural) associated with the outdoor use of GMOs
- protect marketing advantages associated with a “GE free” status
- address cultural concerns of Mana Whenua.

Comment [JW6]: Out of scope

The council does not seek to foreclose potential opportunities associated with a particular GMO that could benefit the community or the area. However, the outdoor use of GMOs, without taking adequate precautions, can have irreversible adverse effects on the environment, including people and communities and their social, economic and cultural well being. To protect the community, it is important to allow for the desired benefits, while managing the risks and potential adverse effects.

There is the ability to review a particular GMO activity if it were to become evident during the **GMO** field trial stage or in light of other new information that it would be of net benefit to Auckland and that potential risks can be managed to the satisfaction of the council. The council or a GMO developer can initiate a plan change to change the status of a GMO activity.

Comment [JW7]: Minor edit to match the defined term.

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5.17 Genetically modified organisms

Background

The outdoor use of GMOs has the potential to cause adverse effects on the environment, economy and social and cultural wellbeing. The objectives and policies seek to protect the community and receiving environment from risks associated with any GMO activity. The application of a precautionary approach to the outdoor use, storage, cultivation, harvesting, processing or transportation of GMOs in Auckland means that:

Comment [JW8]: Minor edit

- The release of a GMO is prohibited (this is to avoid the risk that significant adverse environmental effects will arise, including adverse effects on the economy, community and/or Mana Whenua resources and cultural heritage values); and
- Outdoor field trialling of a GMO (with prior approval of the EPA) is a discretionary activity.

Pastoral farming, dairying, horticulture and forestry are important land uses in Auckland and are significant contributors to the local and regional economy. Aquaculture is also a growing primary industry in New Zealand. Therefore there are a range of outdoor GMOs that GMO developers could consider using in Auckland, including GM food crops, trees, animals, aquaculture products and pharma crops. The potential for adverse effects, including accidental contamination, resulting from the outdoor use of GMOs poses a risk to the community and environment. By specifying classes of GMOs and applying standards to the outdoor use of GMOs, the risks associated with their use, storage, cultivation, harvesting, processing or transportation can be reduced.

Within Auckland, this will involve managing and limiting the outdoor use of GMOs. Further, rules and controls will be used to mitigate any adverse effects associated with contamination by GMOs beyond the subject site, thereby reducing the risks to the community, environment and economy. Accidental or unintentional migration of GMOs that result in GMO contamination and subsequent clean up and remediation can be expensive. The council therefore requires a GMO operator consent holder to meet all potential costs associated with the activity and will secure long term financial accountability through appropriate standards and bonding requirements.

Comment [JW9]: Out of scope

The EPA is not obligated to set monitoring requirements as a part of its approval process, and can only require monitoring where it is relevant to assessing environmental risk. Under s.35 of the RMA, council has a duty to monitor, which can be expensive. Requiring a GMO operator consent holder to meet the costs of monitoring, via consent conditions, ensures the costs are met by the activity operator consent holder.

Comment [JW10]: Out of scope

Comment [JW11]: Out of scope

Objective

[rcp/dp]

1. The environment, including people and communities and their social, economic and cultural wellbeing and health and safety, is protected from potential adverse effects associated with the outdoor use, storage, cultivation, harvesting, processing or transportation of GMOs.

Policies

[rcp/dp]

1. Adopt a precautionary approach by prohibiting the general release of a GMO, and by making outdoor field trialling of a GMO a discretionary activity
2. Require that the holder of a resource consent granted for the outdoor field trialling of a GMO is

Comment [JW12]: Minor edit

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financially accountable (to the extent possible) for any adverse effects associated with the activity, including clean-up costs and remediation, including via the use of bonds.

3. Require outdoor field trialling of GMOs to avoid, as far as can reasonably be achieved, risk to the environment from the use, storage, cultivation, harvesting, processing or transportation of a GMO.
4. Require all monitoring costs to be met by the consent holder.
5. ~~Require that Ensure~~ the outdoor use of GMOs does not result in migration of GMOs beyond the area designated by:
 - a. ~~adequate site design, construction and management techniques~~
 - b. ~~preventing the escape of GMOs from transporting vehicles or vessels~~
 - c. ~~ensuring all heritable material is removed upon the conclusion of the activity.~~
 - d. ~~Ensuring any financial liability is the responsibility of the operator carrying out the activity.~~
6. Adopt an adaptive approach to the management of the outdoor use, storage, cultivation, harvesting, processing or transportation of a GMO through periodic reviews of these plan provisions, particularly if new information on the benefits and/or adverse effects of a GMO activity becomes available.
7. Require where appropriate, more stringent measures than those required under the provisions of the HSNO Act to manage potential risks.

Comment [JW13]: Editorial

Comment [JW14]: Minor edit

Comment [JW15]: Minor edit

Comment [JW16]: Minor edit

Comment [MS17]: Federated Farmers (6523-16), The New Zealand Institute for Plant and Food Research Limited (5508-1)
Deletion of Policy 5(d) as Policy 2 provides adequate cover for this matter.

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PART 3 - REGIONAL AND DISTRICT RULES »Chapter H: Auckland-wide rules » 4 Natural resources»

4.19 Genetically modified

organisms Introduction

The resource consent status indicates the levels of risk considered acceptable by the community for that particular GMO activity and class.

Veterinary vaccines are exempt from the need to obtain resource consent or comply with the performance standards applicable to discretionary activities. This is because they tend not to persist in the environment, appear to be low risk and are difficult to monitor, making control by the ~~District~~ Unitary Plan less appropriate.

A relevant EPA approval is required as a precondition for all applications for resource consent. The duration of any consent granted will be aligned with EPA approval terms.

1. Activity table

GMOs on land and within the CMA

[rcp/dp]

- The following table specifies the activity status of activities for GMOs on land and within the CMA. A site may contain more than one of the listed activities.

| Activity | Activity status |
|--|-----------------|
| GMO activities not specifically provided for or prohibited, including research within contained laboratories and medical applications involving use of non-viable GM products. | P |
| Veterinary Vaccines | P |
| GMO Field Trials on land and within the CMA and any structure intended to house or otherwise contain plants and animals which are associated with the conducting of GMO field trials. | D |
| GMO Releases – Food-Related on land and within the CMA and any structure intended to house or otherwise contain plants and animals which are associated with outdoor GMO releases. | Pr |
| GMO Releases – Non Food-Related on land and within the CMA and any structure intended to house or otherwise contain plants and animals which are associated with outdoor GMO releases. | Pr |

Comment [MS18]: Te Waka Kai Ora Inc. (5835-5), Whangarei District Council (1471-1), Linda Z Grammer and Family (1372-2), GE Free Northland in Food and Environment (7505-3).

2a Notification

- The council will publicly notify resource consent applications for GMO Field Trials on land and within the CMA and any structure intended to house or otherwise contain plants and animals which are associated with the conducting of GMO field trials.

Comment [JW19]: Out of scope.

2. Land use and CMA controls

- Discretionary activities are to comply with the following controls in order to establish in the region. The general development and performance standards are in addition to any controls/conditions imposed by the EPA.

Comment [MS20]: Te Waka Kai Ora Inc. (5835-6), Whangarei District Council (1471-2), Linda Z Grammer and Family (1372-11), Beverley Gott (6448-2), GE Free Northland in Food and Environment (7505-4)

2.1 Approvals

- All GMO discretionary activities shall:
 - Have the relevant approval from the EPA.
 - Be undertaken in accordance with EPA approval conditions for the activity.

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2.2 Bond requirements

1. Council requires the applicant for the resource consent to provide a performance bond (akin to a bank guarantee) in respect of the performance of any one or more conditions of the consent, including conditions relating to monitoring required of the GMO activity (prior to, during and after the activity), and that this be available for payment to redress any adverse environmental effects and any other adverse effects to third parties (including economic effects) that become apparent during or after the expiry of the consent.
2. The exact time and manner of implementing and discharging the bond shall be decided by, and be executed to the satisfaction of Council.
3. ~~Method for determining the amount and type of bond required – Matters that will be considered when determining the amount and type of the bond are:~~
 - ~~a. Matters that will be considered when determining the amount of the bond are:~~
 - ~~ba~~ What adverse effects could occur and the potential significance, scale and nature of those effects, notwithstanding any measures taken to avoid those effects.
 - ~~eb~~ The degree to which the operator consent applicant for the activity has sought to avoid those adverse effects, and the certainty associated with whether the measures taken will avoid those effects.
 - ~~ec~~ The level of risk associated with any unexpected adverse effects from the activity.
 - ~~ed~~ The likely scale of costs associated with remediating any adverse effects that may occur.
 - ~~fe~~ The timescale over which effects are likely to occur or arise.
 - ~~gf~~ The extent of monitoring that may be required in order to establish whether an adverse effect has occurred or whether any adverse effect has been appropriately remedied.

Comment [JW21]: Minor edit

Comment [JW22]: Out of scope

Comment [JW23]: Out of scope

3. Monitoring

1. A GMO discretionary activity may require monitoring during, and beyond the duration of consent. Monitoring is to be carried out by either the Council or consent holder with appropriate reporting procedures to the relevant regulatory authority.
2. A monitoring strategy for a GMO discretionary activity can include the following matters:
 - a. Inspection schedules for the site, storage areas and equipment (daily, weekly, monthly, events based).
 - b. Testing of procedures (e.g. accidental release response).
 - c. Training programmes for new staff, updates for existing staff.
 - d. Audits of sites and site management systems.
 - e. Sample testing of plants, soils and water in neighbouring properties or localities for the presence of migrated GMOs.

Comment [JW24]: Minor edit

4. Reporting

1. Reporting requirements by the consent holder will be stipulated in the consent conditions.

5. Special information requirements

1. Applications for GMO field trials are to provide:
 - a. Evidence of approval from the EPA for the specific GMO for which consent is sought.
 - b. Details of proposed containment measures for the commencement, duration and completion of the proposed activity.

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- c. Details of the species, its characteristics and lifecycle, to which the GMO activities will relate.
- d. Research on adverse effects to the environment and economy associated with the activity should GMOs escape from the activity area, and measures that will be taken to avoid, remedy or mitigate such effects.
- e. Evidence of research undertaken that characterises and tests the GMO, and the certainty associated with the accuracy of that information.
- f. A management plan outlining on-going research and how monitoring will be undertaken during, and potentially beyond, the duration of consent.
- g. Details of areas in which the activity is to be confined.
- h. Description of contingency and risk management plans and measures.

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PART 4 - DEFINITIONS

Genetically modified organisms

Unless expressly provided otherwise by regulations, any organism in which any of the genes or other genetic material:

- have been modified by in vitro techniques or
- are inherited or otherwise derived, through any number of replications, from any genes or other genetic material which has been modified by in vitro techniques.

This does not apply to genetically modified products that are not viable and are no longer genetically modified organisms, or products that are dominantly non-genetically modified but contain non-viable genetically modified ingredients, such as processed foods.

GMO field trials

The carrying out of outdoor trials, on the effects of the organism under conditions similar to those of the environment into which the organism is likely to be released, but from which the organism, or any heritable material arising from it, could be retrieved or destroyed at the end of the trials.

GMO release

To allow the organism to move within New Zealand free of any restrictions other than those imposed in accordance with the Biosecurity Act 1993 or the Conservation Act 1987. A release may be without conditions under s.34 HSNO or subject to conditions set out in s.38A of HSNO.

Comment [JW25]: Minor edit