Appendix 1 – Officers Recommended Amendments to GMO Chapter

Note the below provisions represent the Section 42A Report Writing Officer's recommended amendments to the provisions of the Proposed District Plan, in response to submissions (with underline used for new text and ~~strikethrough~~ for deleted text).

Overview

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 (GMO) are products of genetic modification. Another term often used to refer to the same technique is genetic engineering (GE).

Council has decided to take a precautionary approach which prohibits the release of any GMO:

a. due to the scientific uncertainty of potential adverse effects on natural resources and ecosystems; and
b. that the risk could be substantial and potentially irreversible.

Primary Production is an important land use in the district and is a major contributor to the local and regional economy. There is the potential that a range of outdoor GMO could be used within the district, particularly in relation to food crops, trees, animals and pharma crops. Therefore, the release of outdoor GMO is prohibited due to the potential for adverse effects, including accidental contamination.

Accidental or unintentional migration of GMO that result in GMO contamination and subsequent clean-up and remediation can be expensive, therefore the framework requires long term financial accountability from any GMO operator. This precautionary management of GMO is consistent with the District Plan for the adjoining Whangarei District. The Northland Regional Plan, which manages GMO in the coastal marine area, is based on the same principles.

This approach entails a conservative approach to GMO, due to the sensitive receiving environment and cultural concerns. If in the future there is more certainty on the use of GMO, Council has the ability to review this precautionary approach. However, in the interim, this framework enables the use of GM products in certain circumstances, and the ability to obtain resource consent to undertake outdoor field trialling.

To take advantage of the potential for opportunities associated with GMO development arising in the future, which could benefit the district, region or nation, Council or a GMO proponent could initiate a plan change to change the status of a GMO activity, particularly if supported by information arising during a field trial stage or in light of other information in relation to the science of GMO.

Other legislation which applies to the management of GMO in New Zealand is the Hazardous Substances and New Organisms Act (HSNO Act). The HSNO Act establishes the legal framework for granting approvals to import, develop, field test, or release, new organisms by the national regulator, the Environmental Projection Authority (EPA). This Act sets minimum standards (section 36) and provides for the EPA to set additional conditions that are to apply to a particular GMO activity. However, territorial authorities have jurisdiction under section 31 of the RMA to achieve integrated management of the effects of the use, development, or protection of land and associated natural and physical resources of the district (which encompasses GMO), for the purpose of giving effect to the RMA.

Once a genetically modified organism has been approved for import and release into New Zealand under the HSNO Act, local authorities can provide for the use and protection of them, together with other resources, in a fully integrated fashion.

Council has responsibilities under the RMA and the RPS to manage GMO. There is diverse public opinion regarding GMO in relation to their benefits and concerns over health and environmental harm and this precautionary approach has been requested by local communities.

Objectives	
GMO-O1	The environment, including people and communities and their social, economic and cultural well being and health and safety, is protected from potential adverse effects associated with the outdoor use, storage, cultivation, harvesting, processing or transportation of GMO through the adoption of a precautionary approach, including adaptive responses, to manage uncertainty and lack of information.
GMO-O2	The sustainable management of the natural and physical resources of the district with respect to the outdoor use of GMO, a significant resource management issue identified by the community.
Policies	
GMO-P1	To adopt a precautionary approach by prohibiting the general release of a GMO, and by making outdoor field trialling of a GMO and the use of viable GM veterinary vaccines not supervised by a veterinarian a discretionary activity with all applications to be publicly notified.
GMO-P2	To ensure that a resource consent granted for the outdoor field trialing of a GMO is subject to conditions that ensure the consent holder is 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.
GMO-P3	To ensure that a resource consent granted for the outdoor field trialing of a GMO is subject to conditions that serve to avoid, as far as can reasonably be achieved, risk to the environment, the mauri of flora and fauna, and the relationship of mana whenua with flora and fauna from the use, storage, cultivation, harvesting, processing or transportation of a GMO.
GMO-P4	To ensure that a resource consent granted for the outdoor field trialing of a GMO is subject to a condition requiring that monitoring costs are met by the consent holder.
GMO-P5	To require consent holders for a GMO activity to be liable (to the extent possible) for any adverse effects caused beyond the site for which consent has been granted for the activity.
GMO-P6	To adopt an adaptive approach to the management of the outdoor use, storage, cultivation, harvesting, processing or transportation of a GMO in the district through periodic reviews of these plan provisions, particularly if new information on the benefits and/or adverse effects of a GMO activity becomes available.
GMO-P7	Manage GMOs to address the effects of the activity requiring resource consent, including (but not limited to) consideration of the following matters where relevant to the application: a. site design conditions should ensure GMO sites are designed and managed in a manner that avoids or minimises risks of adverse effects from activities carried out on the site. This shall include provisions to prevent the migration of GMO beyond the area designated for the activity; b. ensure the transportation of GMO is carried out in a manner that minimises the risk of adverse effects by preventing the escape of GMO from the transporting vehicles. Appropriate procedures must be in place to ensure that any vehicle visiting the site is

	thoroughly cleaned and checked prior to leaving the site to avoid unintentional GMO transportation; c. reporting requirements by the consent holder will be stipulated in the consent conditions; d. where necessary, more stringent measures than those required under the provisions of the HSNO Act may be imposed to manage potential risks. A review clause (pursuant to Section 128 of the RMA) may be included in any conditions, where deemed necessary, to address any future changes in technology, and the scope of environmental, economic and cultural effects; and e. the duration of any consent will be aligned with EPA approval terms.

Notes:

1. **There may be rules in other District-Wide Matters and the underlying zone in Part 3 - Area Specific Matters that apply to a proposed activity, in addition to the rules in this chapter. These other rules may be more stringent than the rules in this chapter. Ensure that the underlying zone chapter and other relevant District-Wide Matters chapters are also referred to, in addition to this chapter, to determine whether resource consent is required under other rules in the District Plan. Refer to the *how the plan works* chapter to determine the activity status of a proposed activity where resource consent is required under multiple rules.**
2. **Activities may require consents and / permits under other legislation / plans.**

Rules		
GMO-R1	**Indoor use and research involving GMO**	
All zones	**Activity status: Permitted** **Where:** **PER-1** Indoor use and research involving genetically modified organisms, including (but not limited to): 1. research within contained laboratories involving GMO; 2. the use of non-viable genetically modified veterinary vaccines and viable genetically modified veterinary vaccines with a specific delivery dose supervised by a veterinarian; and 3. medical application involving the manufacture and use of non-viable GM products.	**Activity status where compliance not achieved with PER-1: Discretionary**
GMO-R2	**GMO field trials**	
All zones	**Activity status: Discretionary** **Where:** **PER-1** The activity has been approved by the EPA. **PER-2** The activity complies with standards:	**Activity status where compliance not achieved with PER-1 or PER-2: Non complying**

	GMO-S1 Information to be provided with any application; GMO-S2 Bond requirements; and GMO-S3 Monitoring plan and costings.	
GMO-R3	**The use of any viable genetically modified veterinary vaccines**	
All zones	**Activity status: Discretionary** **Where:** **PER-1** The activity has been approved by the EPA. **PER-2** The activity complies with standards: GMO-S1 Information to be provided with any application; GMO-S2 Bond requirements; and GMO-S3 Monitoring plan and costings.	**Activity status where compliance not achieved: Non complying**
GMO-R4	**Outdoor release of GMO**	
All zones	**Activity status: Prohibited**	**Activity status where compliance not achieved: Not applicable**
GMO-R5	**Notification**	
All zones	**All applications must be publicly notified.**	**Activity status where compliance not achieved: Not applicable**
Standards		
GMO-S1	**Information to be provided with any application**	
All zones	The following information must provided: 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; c. details of the species, its characteristics and lifecycle, to which the GMO activities will relate; d. research on adverse effects to the environment, cultural values and economy associated with the activity should GMO 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 ongoing 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; and h. description of contingency and risk management plans and measures.	
GMO-S2	**Bond requirements**	
All zones	A performance bond (secured by a cash or bank guarantee) must be provided 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 any approved consent.	**Matters that will be considered when determining the amount of the bond are:** a. what adverse effects could occur and the potential significance, scale and nature of those effects, notwithstanding any measures taken to avoid those effects; b. the degree to which the operator of the activity has sought to avoid those adverse effects, and the certainty associated with whether the measures taken will avoid those effects; c. the level of risk associated with any unexpected adverse effects from the activity; d. the likely scale of costs associated with remediating any adverse effects that may occur; e. the timescale over which effects are likely to occur or arise; and f. the extent of monitoring that may be required in order to establish whether an adverse effect as occurred or whether any adverse effect has been appropriately remedied.
GMO-S3	**Monitoring plan and costs**	
All zones	a. A monitoring plan must be prepared, including costing that details the appropriate reporting procedures to the relevant regulatory authority; and b. The plan shall determine if any monitoring is required beyond the duration of any approved consent.	**A monitoring strategy for a GMO discretionary activity can include (but is not limited to) 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; and

		e. sample testing of plants and soils in neighbouring properties for the presence of migrated GMO.