

SECTION 32 REPORT

Genetically Modified Organisms

May 2022

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1 Executive Summary

The resource management issue to be addressed is that there is scientific uncertainty regarding the potential environmental effects of the use and discharge of Genetically Modified Organisms (**GMOs**). GMOs may adversely affect the environment, economy, and social and cultural resources and values, and could result in significant costs. Benefits could be achieved from GMOs, including increased productivity in both plants and animals, environmental management and pest control, and biopharming (the modification of organisms for pharmaceutical purposes). However, the degree of scientific uncertainty associated with the use of GMOs and potential scale of the risks involved currently outweigh the benefits. Therefore, these uses should be controlled by a precautionary approach consistent with that currently applied by Far North District Council (**Council**) and applied by Northland Regional Council (**NRC**), Whangārei District Council (**WDC**) and Auckland Councils.

The proposed subject chapter on GMOs was recently introduced into the Operative Far North District Plan 2009 (**ODP**) by way of Plan Change 18. Due to the GMOs provisions only being made recently operative, these provisions have been carried over into the Proposed District Plan (**PDP**) with only the structure, layout and minor amendment to rule language, to maintain effect of provisions in the new structure, being changed to align with the new format of the other chapters. There has been no change to overall intent, and no additional rules or restrictions have been imposed.

The following evaluation has been undertaken in accordance with section 32 of the Resource Management Act 1991 (**RMA**) in order to identify the need, benefits, costs and the appropriateness of the proposal having regard to its effectiveness and efficiency in achieving the purpose of the RMA. The evaluation demonstrates that this proposal is the most appropriate option, as it includes the most appropriate objectives, policies and methods to ensure consistency and maintain the integrity of the PDP and align with the Northland Regional Policy Statement (**RPS**) which directs a precautionary approach to the management of GMOs.

The overall conclusion is that the status quo of the ODP provisions are the most appropriate way to manage the issue, and the PDP seeks only to align with the proposed plan format.

2 Introduction and Purpose

2.1 Purpose of report

This report provides an evaluation undertaken by the Council in preparation of district plan provisions for the GMO provisions in the PDP. This assessment is required by Section 32 of the Resource Management Act 1991 (**RMA**).

Section 32 of the RMA requires councils to examine the proposed objectives, associated policies, and other provisions, and to assess the anticipated environmental, economic, social, and cultural effects, benefits and costs of implementing the provisions. Since section 32 evaluations represent an on-going process, this report is only the initial evaluation, with further revisions expected throughout the review process in response to submissions received following notification of the PDP. Section 32 evaluations represent an on-going process in RMA plan development and a further evaluation under section 32AA of the RMA is expected throughout the review process in response to submissions received following notification of the PDP.

2.2 Overview of topic

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. GMOs are products of genetic modification. The absolute and relative benefits associated with the development and use of GMOs is continually being redefined as this and other forms of applied biotechnology advance. There remains scientific uncertainty with respect to 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 even if the funding were available for this, irrespective of the consequences. If the GMO is related to a food product, the “GE Free” food producer status of a district or region would likely be permanently lost, along with any marketing advantages that status confers.

Given a council’s general duties of care for its financial position and that of its constituents, there is a ready justification for councils to enforce mandatory conditions to provide for both financial accountability and avoidance of economic damage. These controls would act in addition to those that may be set by the Environmental Protection Agency (**EPA**) under the Hazardous Substances and New Organisms Act (**HSNO Act**).

The proposed subject chapter on GMOs was recently introduced into the ODP by way of Plan Change 18, which became operative 19 September 2018. Due to this only the structure and layout of the operative chapter has been changed to align with the new format of the other chapters and where required wording. There has been no change to overall intent, and no additional rules or restrictions have been imposed. Status quo is the most appropriate option to ensure consistency and maintain the integrity of the proposed plan and align with the RPS which directs a precautionary approach to the management of GMOs.

3 Statutory and Policy Context

3.1 Resource Management Act 1991

The Section 32 Overview Report for the PDP provides a summary of the relevant statutory requirements in the RMA relevant to the PDP. This section provides a summary of the matters in Part 2 of the RMA (purpose and principles) of direct relevance to this topic.

Section 74(1) of the RMA states that district plans must be prepared in accordance with the provisions of Part 2. The purpose of the RMA is the sustainable management of natural and physical resources which is defined in section 5(2) of the RMA as:

“...sustainable management means managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic and cultural wellbeing, and for their health and safety while –

- (a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
- (b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
- (c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.”*

To achieve the purpose of the RMA, all those exercising functions and powers under the RMA are required to:

- Recognise and provide for the matters of national importance identified in section 6
- Have particular regard to a range of other matters in section 7
- Take into account the principles of the Treaty of Waitangi in section 8 of the RMA.

The following section 6 matters are directly relevant to the management of GMOs

- (b) The protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:
- (c) The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:
- (d) The relationship of māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:

Section 6(e) is particularly relevant to the GMO topic and highlights that the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga is a matter of national importance. Tangata whenua have consistently highlighted concerns from a Te Ao Māori world view with the use of GMOs and the risk that this can pose to the mauri of their ancestral lands, water and other taonga.

The following section 7 matters are directly relevant to the management of GMOs:

- (a) Kaitiakitanga:
 - (aa) The ethic of stewardship:
- (b) The efficient use and development of natural and physical resources:
- (c) The maintenance and enhancement of amenity values:
- (d) Intrinsic values of ecosystems:
- (f) Maintenance and enhancement of the quality of the environment:

The above matters are significant in relation to ensuring GMOs are managed to avoid adverse and unrepairable impacts on the environment. Section 7(a) is relevant insofar as it relates to tangata whenua being kaitiaki and their stated desire to protect the environment from the scientific

uncertainty and potentially significant irreversible physical and cultural adverse effects of GMO releases.

3.2 Higher order planning instruments

Section 75(3) of the RMA requires district plans to give effect to higher order planning instruments - National Policy Statement (**NPS**), the New Zealand Coastal Policy Statement (**NZCPS**), National Planning Standards (**Planning Standards**), and the relevant Regional Policy Statement (**RPS**). The Section 32 Overview Report provides a more detailed summary of the relevant RMA higher order planning instruments relevant to the PDP. The sections below provide an overview of provisions in higher order planning instruments directly relevant to GMOs.

3.2.1 National Planning Standards

Section 75(3)(ba) of the RMA requires that district plans give effect to Planning Standards. The Planning Standards were gazetted in April 2019 and the purpose is to assist in achieving the purpose of the RMA and improve consistency in the structure, format and content of RMA plans. There is no specific reference of provisions for GMOs in the Planning Standards.

3.2.2 National Policy Statements

Section 75(3)(a) of the RMA requires that district plans give effect to any NPS. There are currently five National Policy Statements:

- National Policy Statement on Urban Development
- National Policy Statement for Freshwater Management
- National Policy Statement for Renewable Electricity Generation
- National Policy Statement on Electricity Transmission
- New Zealand Coastal Policy Statement

The NPS for Urban Development, Renewable Electricity Generation and Electricity Transmission do not specifically relate to GMOs. The National Policy Statement for Freshwater Management and the NZCPS are further discussed below.

| National Policy Statement for Freshwater Management 2020 (NPS:FM) | |
|--|--|
| Policy 1 | Freshwater is managed in a way that gives effect to Te Mana o te Wai. |
| Policy 2 | Tangata whenua are actively involved in freshwater management (including decision making processes), and Māori freshwater values are identified and provided for |
| Policy 3 | Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments. |
| Policy 5 | Freshwater is managed through a National Objectives Framework to ensure that the health and well-being of degraded water bodies and freshwater ecosystems is improved, and the health and well-being of all other water bodies and freshwater ecosystems is maintained and (if communities choose) improved. |
| Policy 6 | There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted. |
| Policy 7 | The loss of river extent and values is avoided to the extent practicable. |
| Policy 8 | The significant values of outstanding water bodies are protected |

| | |
|------------------|--|
| Policy 9 | The habitats of indigenous freshwater species are protected |
| Policy 15 | Communities are enabled to provide for their social, economic, and cultural wellbeing in a way that is consistent with this National Policy Statement. |

Northland Regional Council (**NRC**) has the majority of the obligations under the NPS:FM, while the National Environmental Standard for Freshwater implement the NPS:FM. NRC has not yet amended the Northland Regional Policy Statement to give effect to the NPS:FM.

Notwithstanding, land-uses which are managed under district council's jurisdiction have the potential to have adverse effects on the wider receiving environment which includes freshwater and freshwater bodies. As such, it is appropriate for district council to give consideration to the above policies to ensure the effects of land uses on freshwater are appropriately managed.

It is considered that the GMO provisions do not offend, and in some cases specifically accord with the direction provided in the NPS:FM. In particular the proposed provisions acknowledge tangata whenua concerns relating to the significant and potentially irreversible cultural and environmental effects that GMOs could have on ecosystems, including freshwater ecosystems.

| <u>New Zealand Coastal Policy Statement 2010 (NZCPS)</u> | |
|---|---|
| Policy 3 | Adopting a precautionary approach towards proposed activities whose effects on the coastal environment are uncertain, unknown, or little understood, but potentially significantly adverse. |
| Policy 4 | Provide for the integrated management of natural and physical resources in the coastal environment, and activities that affect the coastal environment. |
| Policy 6 | recognises the need to enable people and communities to provide for their social, economic and cultural wellbeing and their health and safety, through subdivision, use and development of the coastal environment. |

The NZCPS emphasises 'appropriate' use of the coastal environment. Objectives focus on, for example, the protection of natural character, management of the coastal environment from inappropriate subdivision, use and development.

Land-uses within the northland region have the potential to have adverse effects on the ultimate receiving environment of the coastal marine environment by way of run-off and other natural environment processes. As such, it is appropriate for district council to give consideration to the policies of the NZCPS.

In giving effect to the NZCPS, the Northland RPS, and Proposed Regional Plan has sought to manage effects of GMOs within the Coastal Marine Area (**CMA**). While some matters are still under appeal within the regional plan, it is noted the points of appeal on GMOs within the CMA were resolved on 5 August 2020.¹ These provisions seek to manage GMOs in a manner similar to the Auckland Unitary Plan provisions and those currently operative in the Far North District Plan, albeit with the key different being a terrestrial environment opposed to a coastal environment. As such, it is appropriate to give consideration to provisions that align with the regional plan in order to ensure an integrated approach as per policy 3 of the NZCPS.

¹ ENV-2019-AKL-000177

3.2.3 National Environmental Standards

Section 44 of the RMA requires local authorities to recognise NES by ensuring plan rules do not conflict or duplicate with provisions in a NES. In this instance, there are no national environmental standards considered directly relevant to the consideration of GMO provisions.

3.2.4 Regional Policy Statement for Northland

Section 75(3)(c) of the RMA requires district plans to 'give effect' to any RPS. The RPS was made operative on 14 June 2018. The table below outlines the provisions in the RPS are directly relevant to GMOs.

| RPS | |
|---------------------|---|
| Policy 6.1.1 | requires efficient and effective planning, where district plans shall: (a) Only contain regulation if it is the most effective and efficient way of achieving resource management objective(s), taking into account the costs, benefits and risks; (b) Be as consistent as possible; (c) Be as simple as possible; (d) Use or support good management practices; (e) Minimise compliance costs and enable audited self-management where it is efficient and effective; (f) Enable the aspects of subdivision, use and development that complies with the Regional Policy Statement; and (g) Focus on effects and where suitable use performance standards. |
| Policy 6.1.2 | requires a precautionary approach to be adopted as follows: Adopt a precautionary approach towards the effects of climate change and introducing genetically modified organisms to the environment where they are scientifically uncertain, unknown, or little understood, but potentially significantly adverse. |
| Policy 8.1.1 | requires councils to provide opportunities for tangata whenua to participate in the review, development, implementation, and monitoring of plans and resource consent processes under the Resource Management Act 1991. |
| Policy 8.1.4 | outlined that relevant Māori concepts, values and practices will be clarified through consultation with tangata whenua to develop common understandings of their meaning and to develop methodologies for their implementation. |
| Policy 8.2.1 | requires that regional council will recognise the value of iwi and hapū management plans in decision-making under the Resource Management Act 1991 and the need to support tangata whenua in the development and implementation of these plans. |

In summary, these RPS objectives and policies and the implementation method require the PDP to:

- Policy 6.1.2 of the RPS gives clear direction that council's giving effect to the RPS are to adopt a precautionary approach towards introducing GMOs to the environment where they are scientifically uncertain, unknown, or little understood, but potentially significantly adverse.
- Further, policy 6.1.1 directs that district plans shall be consistent as possible while enabling

use and development that complies with the RPS, along with other considerations. It is considered this is a useful policy in regard to the consideration of district GMO provisions.

- In regards to issues of significance to tangata whenua in relation to natural and physical resources, it is noted that iwi authorities have identified the use of genetic engineering and the release of genetically modified organisms to the environment to be an issue.² As such, it is appropriate to have regards to this within having regard to policies 8.1.1, 8.1.4 and 8.2.1 of the RPS when developing district plan policy and giving effect to the RPS.

Overall, the relevant provisions of the RPS identified above were a key driver to the inclusion of GMO provisions in the ODP. To appropriately give effect to these provisions, it is considered necessary to roll over these provisions in the PDP.

3.3 Regional Plan for Northland

Section 75(4)(b) of the RMA states that any district must not be inconsistent with a regional plan for any matter stated in section 30(1) of the RMA. The operative Northland Regional Plans and proposed Northland Regional Plan are summarised in the **Section 32 Overview Report**. The table commentary provides an overview of regional plan provisions directly relevant to GMOs.

NRC administers the following Operative Regional Plans:

- Regional Water and Soil Plan
- Air Quality Plan
- Coastal Plan

The matter of GMOs is not directly addressed by these plans, noting the development of these plans precedes the current operative RPS.

NRC is working through appeals on the Proposed Regional Plan, with the current version of the Regional Plan being the Proposed Regional Plan for Northland Appeal Version (July 2021). The following is noted in the table below:

| Proposed Regional Plan for Northland - Appeal Version (July 2021)³ | |
|--|---|
| Chapter D.5 Coastal | |
| Policy D.5.32 | Outlines that a precautionary approach be adopted when assessing and managing GMOs within the CMA. |
| Policy D.5.33 | Requires an adaptive approach to be adopted in relation to the management of GMOs particularly if new information on the benefits and/or adverse effects of a genetically modified organism activity becomes available. |
| Policy D.5.34 | Involves avoiding adverse effects of genetically modified organism field trials. |
| Policy D.5.35 | Requires consent holders to be liable for any adverse effects caused beyond the site for which consent has been granted. |
| Policy D.5.36 | Requires bonds for genetically modified organism activities. |
| Policy D.5.37 | Requires risk management plans to be provided with GMO field trials with a variety of information requirements being required. |

² See Section 2.6 of the Northland Regional Policy Statement, May 2018.

³ All provisions listed are beyond challenge with all relevant appeals settled.

| Rules section C.1.9 | |
|----------------------------|---|
| Rule C.1.9.1 | Genetically modified organisms in the coastal marine area – permitted activities. It is noted the permitted activities provide for are research and trial contained within laboratories, medical application and veterinary applications. |
| Rule C.1.9.2 | Genetically modified organism field trials – discretionary activity |
| Rule C1.9.3 | Viable genetically modified veterinary vaccines – discretionary activity |
| Rule C.1.9.4 | Genetically modified organism releases – prohibited activity |

When having regard to the policy and rules framework of the proposed regional plan, it is considered seeking the management of GMOs under the PDP is appropriate and consistent with the approach taken by the proposed regional plan to give effect to the RPS.

3.4 Iwi and Hapū Environmental Management Plans

When preparing and changing district plans, Section 74(2A) of the RMA requires Council to take into account any relevant planning document recognised by an iwi authority and lodged with the territorial authority, to the extent that its content has a bearing on the resource management issues of the district. At present there are ten iwi planning documents accepted by Council which are set out and summarised in the Section 32 Overview Report. The key issues in these plans that have been taken into account in the preparation of the provision for GMOs.

These documents generally oppose the release of GMOs to the environment and advocate a precautionary approach to GMOs. Some advocate local management of GMOs. Having reviewed each document and taking into account the provisions, it is considered that imposing GMOs provisions are consistent with, and in some respects will help achieve, the outcomes sought in these documents.

3.5 Other Legislation and Policy Documents

When preparing or changing a district plan, section 74(2)(b)(i) of the RMA requires council to have regard to management plans and strategies prepared under other Acts to the extent that it has a bearing on resource management issues of the district. The **Section 32 Overview Report** provides a more detailed overview of strategies and plans prepared under legislation that are relevant to PDP. This section provides an overview of other strategies and plans directly relevant to GMOs.

3.5.1 Hazardous Substances and New Organisms Act 1996

3.5.1.1 Overview of the Act

The use of GMOs is controlled at the national level by the HSNO Act. It establishes the legal framework for assessments by the national regulator, the EPA. The EPA is responsible for regulating all research, development, importation, field testing and release of GMOs, and must hold public hearings on any applications to field test, conditionally release or release a GMO.

The purpose of the HSNO Act are set out in sections 4, 5 and 6. These sections are as follows:

4 Purpose of Act

The purpose of this Act is to protect the environment, and the health and safety of people and communities, by preventing or managing the adverse effects of hazardous substances and new organisms.

5 Principles relevant to purpose of Act

All persons exercising functions, powers, and duties under this Act shall, to achieve the purpose of this Act, recognise and provide for the following principles:

- (a) the safeguarding of the life-supporting capacity of air, water, soil, and ecosystems:*
- (b) the maintenance and enhancement of the capacity of people and communities to provide for their own economic, social, and cultural well-being and for the reasonably foreseeable needs of future generations.*

6 Matters relevant to purpose of Act

All persons exercising functions, powers, and duties under this Act shall, to achieve the purpose of this Act, take into account the following matters:

- (a) the sustainability of all native and valued introduced flora and fauna:*
- (b) the intrinsic value of ecosystems:*
- (c) public health:*
- (d) the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, valued flora and fauna, and other taonga:*
- (e) the economic and related benefits and costs of using a particular hazardous substance or new organism:*
- (f) New Zealand's international obligations.*

The HSNO Act sets minimum national standards against which proposed GMO activities are to be judged and provides for the EPA to set conditions specific to approved GMO activities once it has weighed the costs and benefits.

3.5.1.2 Relationship of Resource Management Act and Hazardous Substances and New Organisms Act 1996

It is noted that the management of GMOs under the RMA has been subject to a number of appeals. The Proposed RPS GMO provisions were appealed to the Environment Court. A preliminary hearing concerning jurisdiction took place in 2015 and a decision supporting jurisdiction to manage GMOs under the RMA was delivered by the Environment Court in May 2015. Federated Farmers appealed this decision to the High Court on points of law. A decision from the High Court was issued in September 2016 which reaffirmed jurisdiction to manage GMOs under the RMA. This was subsequently appealed again to the Court of Appeal, but this appeal was withdrawn in November 2017.

As such it has been determined through the Courts that there is jurisdiction under the RMA to regulate GMOs in planning documents in addition to requirements under HSNO Act. There is nothing in the HSNO Act to preclude a local authority imposing greater levels of control in its District / Regional Plan for RMA purposes than those imposed by the HSNO Act. The RMA also provides communities with the ability to set rules that embody community determined outcomes, including the level of risk it is willing to accept with respect to activities such as the management of GMOs.

Overall, it is concluded that the relevant RMA provisions are not in conflict with those of the HSNO Act and the two statutes can operate side by side and complement each other, rather than duplicate functions. The HSNO Act and the RMA have different purposes and roles in relation to GMOs. The HSNO Act's purpose and role is to assess new organisms (including GMOs) for approval (or not) for introduction into New Zealand. Once released in New Zealand, they are no longer considered new organisms and the HSNO Act has no further role. The RMA, on the other hand, is a comprehensive statute that regulates the use of all natural and physical resources in an integrated manner over time so as to achieve the sustainable management of those resources. 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. As such, the preparation of a section 32 report therefore continues to be entirely appropriate to evaluate current and future local management of outdoor GMOs.

4 Current State and Resource Management Issues

This section provides an overview of the relevant context for GMOs, current approach to manage GMOs through the ODP, and key issues raised through consultation. It concludes with a summary of the key resource management issues for GMOs to be addressed through the PDP.

4.1 Operative District Plan Approach

4.1.1 Summary of current management approach

The ODP provisions provide the same precautionary approach with adaptive responses to the outdoor use of GMOs as the Whangārei District Plan (Operative) and the Auckland Unitary Plan (Operative in Part) albeit with some variation in structure to allow for formatting differences between the Whangārei District Plan and the Far North District Plan. In essence the ODP is the same as that being proposed in the PDP, with again changes being made to provide for formatting differences and minor wording amendments to fit with the structure change.

4.2 Key issues identified through consultation

4.2.1 Summary of consultation

The **Section 32 Overview Report** provide a detailed overview of the consultation and engagement Council has undertaken with tangata whenua, stakeholders and communities throughout the district to inform the development of the PDP and the key issues identified through this consultation and engagement. Very little feedback was received on the topic of GMO given its recent plan change process, feedback is summarised as follows:

- That the existing precautionary provisions and policies regarding GE-free/GMO need to be preserved and enhanced to ensure the exclusion of any gene edited organisms in the Far North and actually all of New Zealand.
- That there is no need to regulate GMOs in the Plan and that therefore they should not be regulated in the Plan, but if council is minded to do so, then the only justification for the management thereof is by way of a controlled activity rule.
- Please ensure funds are budgeted in the new District Plan so that FNDC can continue to participate in the good work of the Northland/ Auckland ICWP on GMOs (particularly in the event of an application for an outdoor GE/GMO experiment/ field trial in Northland to the EPA). A \$10,000 contingency fund is necessary.

4.2.2 Summary of advice from iwi authorities

Section 32(4A)(a) of the RMA requires that evaluation reports include a summary of advice on a proposed plan received from iwi authorities. The **Section 32 Overview Report** provides an overview of the process to engage with tangata whenua and iwi authorities in the development of the PDP and key issues raised through that process. Two pieces of feedback were received on the GMO topic. In summary the feedback sought:

- That the district was a GE free area;
- Prohibition of any GMO field trials.

Section 5 of this report outlines how the proposed management approach responds to this advice in accordance with section 32(4A)(b) of the RMA.

4.3 Summary of Resource Management Issues

The key resource management issue for GMOs is that there is scientific uncertainty use of GMOs that may adversely affect the environment, economy, and social and cultural resources and values, and could result in significant costs, as has been extensively researched through the Inter Council Working Party on GMO Risk investigations undertaken in preparation for Plan Change 18.

The absolute and relative benefits associated with the development and use of GMOs is continually being redefined as this and other forms of applied biotechnology advance. However there remains scientific uncertainty with respect to potentially significant adverse effects of GMOs on natural resources and ecosystems. The risks could be substantial and certain consequences irreversible, and could include the following:

- Environmental risks, including adverse effects on other species and ecosystems by way of GM species becoming invasive and disrupting ecosystems; altered genes transferring to other organisms; and development of herbicide or pesticide resistance;
- Economic risks, including loss of income associated with actual or perceived contamination of non-GMO food products; negative effects on marketing and the international NZ 'green' image; and costs associated with environmental damage; and
- Social and cultural risks, including effects on Māori cultural beliefs; ethical concerns; and actual or perceived effects on human health of GMO foods.

Once released into the environment, most GMOs would be very difficult to eradicate even if the funding were available for this, irrespective of the consequences. If the GMO is related to a food product, the "GE Free" food producer status of a district or region would likely be permanently lost, along with any marketing advantages that status confers.

5 Proposed District Plan Provisions

The proposed provisions are set out in District Wide Matters of Part 2 of the Proposed Far North District Plan under the Genetically Modified Organisms Chapter. These provisions should be referred to in conjunction with this evaluation report.

5.1 Strategic Objectives

The PDP includes a strategic direction section which provides high level direction on the strategic or significant matters for the District, and objectives to guide strategic decision-making under the PDP. The strategic objectives in the PDP of relevance to the GMO topic include:

- SD-CP-02** Te ao māori, tikanga māori and tangata whenua as kaitiaki, embedded in and integral to decision making.
- SD-EP-01** A culture of stewardship in the community that increases the District's biodiversity and environmental sustainability

5.2 Proposed Management Approach

This section provides a summary of the proposed management approach for GMOs focusing on the key changes from the ODP. The **Section 32 Overview Report** outlines and evaluates general differences between the PDP provisions and ODP, includes moving from an effects-based plan to a 'hybrid plan' that includes effects and activities-based planning and an updated plan format and structure to align with Planning Standards.

Local regulation can address key gaps that have been identified in the national regulatory regime for the management of GMOs, in particular the absence of liability provisions and the lack of a mandatory

precautionary approach. Benefits of local level regulation, in addition to the controls set by the EPA, can include:

- Ensuring GM operators are financially accountable in the long-term through bonding and financial fitness provisions for the full costs associated with the GMO activity. This includes accidental or unintentional contamination, clean-up, monitoring and remediation;
- Adoption of a precautionary approach to manage potential risks (economic, environmental, social and cultural) associated with the use of GMOs;
- Protection of local/regional marketing advantages through reducing risks associated with market rejection and loss of income from GM contamination of non-GM species, and negative effects on marketing, branding and tourism opportunities; and
- Addressing cultural concerns of Māori, particularly given that Māori make up a considerably greater proportion of the population in Northland than is represented nationally.

Given a council's general duties of care for its financial position and that of its constituents, there is a ready justification for the Council to enforce mandatory conditions to provide for both financial accountability and avoidance of economic damage. These controls act in addition to those that may be set by the EPA under the HSNO Act.

The sections below provide a high-level summary of the objectives, policies, and rules and other methods for GMOs.

5.3 Summary of proposed objectives and provisions

This section provides a summary of the proposed objectives and provisions which are the focus of the section 32 evaluation in section 7 and 8 of this report.

5.3.1 Summary of objectives

The proposed management approach for GMOs includes objectives that:

- Seek to ensure 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.
- Seek 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.

5.3.2 Summary of provisions

For the purposes of section 32 evaluations, 'provisions' are the *"policies, rules, or other methods that implement, or give effect to, the objectives of the proposed plan or change"*.

The proposed management approach for GMOs includes policies that:

- 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.
- Ensure that a resource consent granted for the outdoor field trialling 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.
- Ensure that a resource consent granted for the outdoor field trialling 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.

- Ensure that a resource consent granted for the outdoor field trialling of a GMO is subject to a condition requiring that monitoring costs are met by the consent holder.
- 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.
- 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.
- Consider the following when assessing proposals for land use:
 - 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;
 - 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;
 - reporting requirements by the consent holder will be stipulated in the consent conditions;
 - 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
 - the duration of any consent will be aligned with EPA approval terms.

The proposed management approach for GMOs includes rules and standards that:

- Permits the indoor use and research of GMOs in all zones as a permitted activity where:
 - research is contained within laboratories involving GMOs
 - the use of non-viable genetically modified veterinary vaccines and viable genetically modified veterinary vaccines with a specific delivery does are supervised by a veterinarian
 - has medical application involving the manufacture and use of non-viable GM products.
- Provides for indoor GMOs to be assessed as discretionary activities where permitted activity standards are not met.
- Provides for field trials as a discretionary activity subject to performance standards. Where these performance standards are not met, field trials are to be assessed as a non-complying activity.
- Provides for viable genetically modified veterinary vaccines as a discretionary activity subject to performance standards. Where these performance standards are not met, this is to be assessed as a non-complying activity.
- The outdoor release of GMOs is to be a prohibited activity.
- Ensures all GMO applications must be publicly notified.
- Provides plan specific definitions for:
 - Genetically Modified Organisms (GMOs)
 - Genetically Modified Organism Field Trials (Tests)
 - Genetically Modified Organism Release

- Genetically Modified Veterinary Vaccine

The proposed management approach for GMOs also provides various performance standards that seek to:

- Ensure possession of relevant approvals from the EPA and compliance with conditions set by the EPA.
- Information on the following matters:
 - evidence of approval from the EPA for the specific GMO for which consent is sought;
 - details of proposed containment measures for the commencement, duration and completion of the proposed activity;
 - details of the species, its characteristics and lifecycle, to which the GMO activities will relate;
 - 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;
 - evidence of research undertaken that characterises and tests the GMO, and the certainty associated with the accuracy of that information;
 - a management plan outlining ongoing research and how monitoring will be undertaken during, and potentially beyond, the duration of consent;
 - details of areas in which the activity is to be confined; and
 - description of contingency and risk management plans and measures.
- A performance bond (akin to a bank guarantee) 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.
- A monitoring plan that including costing that details the appropriate reporting procedures to the relevant regulatory authority and sets out whether any monitoring if required beyond the duration of any approved consent.

It is noted the objectives, policies and methods accord with the operative provisions with the exception of GMO-P7 which was previously expressed as assessment criteria in the ODP and is now drafted as a policy to accord to the overall format of the PDP.

5.3.3 Responding to advice from iwi authorities

Section 32(4A) of the RMA requires evaluation reports to summarise advice received from iwi authorities on a proposed plan and the response to that advice, including any provisions that are intended to give effect to the advice. Section 3.3 of this report provides a summary of advice received from iwi authorities on GMOs which focused on the district being GE free. The proposed management approach responds to this advice as follows:

- Te Runanga O Ngāti Rāhia advised they opposed the introduction of genetically modified organisms, or products from such organisms, on the basis that it is contrary to whakapapa, it represents untested dangers, and is not in any way essential to human wellbeing. Therefore, they oppose the policies allowing GMO field trial consents to be granted within their rohe.
- Ngati Kuta advised they support a GE Free area.

Regulation of GMO under the ODP is a result of a recent plan change, which went through extensive community consultation to create. It is also a framework reflective of an approach undertake collectively with Whangārei and Auckland Councils, and aligns with the Northland Regional Policy Statement. Therefore, at this stage it is not considered appropriate to create a blanket prohibitive status for everything to do with GMOs and to prevent potential research trials which may result in significant benefits to the district, regional and the country as a whole.

6 Approach to Evaluation

6.1 Introduction

The overarching purpose of section 32 of the RMA is to ensure all proposed statements, standards, regulations, plans or changes are robust, evidence-based and are the most appropriate, efficient and effective means to achieve the purpose of the RMA. At a broad level, section 32 requires evaluation reports to:

- Examine whether the objectives in the proposal are the most appropriate to achieve the purpose of the RMA
- Examine whether the provisions are the most appropriate way to achieve the objectives through identifying reasonably practicable options and assessing the efficiency and effectiveness of the provisions, including an assessment of environment, economic, social and cultural economic benefits and costs.

These steps are important to ensure transparent and robust decision-making and to ensure stakeholders and decision-makers can understand the rationale for the proposal. There are also requirements in section 32(4A) of the RMA to summarise advice received from iwi authorities on the proposal and the response to that advice through the provisions.

6.2 Evaluation of scale and significance

Section 32(1)(c) of the RMA requires that evaluation reports contain a level of detail that corresponds with the scale and significance of the environmental, economic, social and cultural effects that are anticipated from the implementation of this proposal. This step is important as it determines the level of detail required in the evaluation of objectives and provisions so that it is focused on key changes from the status quo.

The scale and significance of the environmental, economic, social and cultural effects of the provisions for GMOs are evaluated in the table below.

| Criteria | Comment | Assessment |
|---|--|------------|
| Raises any principles of the Treaty of Waitangi | The provisions seek to align with iwi and hapū management plans and issues identified by tangata whenua in the RPS. As such, the provisions do not raise particular principles that relate to Te Tiriti o Waitangi / Treaty of Waitangi. | Low |
| Degree of change from the Operative Plan | Overall, the degree of change from the Operative Plan is minor. The proposed provisions align with the structure of the Planning Standards, and effectively maintain the existing provisions from the ODP. | Low |
| Effects on matters of national importance | It is considered that the proposed provisions are consistent in that it appropriately recognises and provide for the matters of national importance in section 6 of the RMA. In particular, will ensure the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu and other taonga are recognised and provided for. | Low |
| Scale of effects – geographically (local, | The proposal will have a district wide effect as the provisions will apply across all zones and will | low |

| Criteria | Comment | Assessment |
|---|--|------------|
| district wide, regional, national). | affect all the land use activities associated with GMOs but will benefit the public in terms of managing the impacts of GMOs on the environment. However, the degree of change from the ODP is minor. | |
| Scale of people affected – current and future generations (how many will be affected – single landowners, multiple landowners, neighbourhoods, the public generally, future generations?). | The provisions apply a precautionary approach to manage potential adverse effects from GMOs that may have a wide range of effects on a range of scales that is not readily quantifiable. It is anticipated that the precautionary approach will be reviewed and updated to reflect any evolution of science and to follow best practice with future District Plan reviews, noting that the life of a District Plan is expected to be 10 years under the RMA. | Medium |
| Scale of effects on those with specific interests, e.g., Tangata Whenua | The provisions may apply to a wide range of interested parties, food producers and growers, scientific researchers etc particularly in a rural context. Tangata whenua have expressed a particular interest in GMO, however it is noted that the provisions align with iwi and hapū management plans and issues identified by tangata whenua in the RPS. | low |
| Degree of policy risk – does it involve effects that have been considered implicitly or explicitly by higher order documents? Does it involve effects addressed by other standards/commonly accepted best practice? | <p>The consideration of the proposed provisions does not represent a significant policy shift from the ODP provisions and the policy direction set under the NRPS.</p> <p>The changes are in accordance with commonly accepted best practice for adopting a precautionary approach to the management of GMOs, and consistent with approaches in other district and regional plans in Northland and AUP:OP that have been produced in New Zealand.</p> | Low |

6.3 Summary of scale and significance assessment

In terms of the proposed change from the GMO provisions under the ODP, PC18 of the operative plan relating to GMOs was only recently made operative on 19 September 2018 and was supported by a body of technical evidence. This included reports and statements of evidence by Professor Jack Heinemann that demonstrated that there is scientific uncertainty regarding the use of GMOs, and as such there are scientific grounds to exercise precaution as provided under the operative provisions. Further, reports and statements of evidence from Dr John Small supported PC18 and his evidence concluded that there is a significant economic benefit from taking a precautionary approach to the release of GMOs and that the potential costs are modest.

Given PC18 was only recently made operative on 19 September 2018, it is considered the relevant policy considerations, technical and expert evidence provided by FNDC (and WDC) in support of their respective plan changes is appropriate to still be relied upon.

Overall, it is considered the scale and significance of the proposal is low, noting the consideration of the proposed provision does not represent a significant policy shift from the ODP provisions and the policy direction set under the RPS.

Consequently, a lower level of detail is appropriate for the evaluation of the objectives and provisions for GMOs in accordance with section 32(1)(c) of the RMA.

7 Evaluation of Objectives

Section 32(1)(a) of the RMA requires that the evaluation report examine the extent to which the objectives of the proposal are the most appropriate way to achieve the purpose of the RMA. The assessment of the appropriateness of the objectives for GMOs is against four criteria to test different aspects of 'appropriateness' as outlined below.

| Criteria | Assessment |
|----------------|--|
| Relevance | <ul style="list-style-type: none"> Is the objective directly related to a resource management issue? Is the objective focused on achieving the purpose of the RMA? |
| Usefulness | <ul style="list-style-type: none"> Will the objective help Council carry out its RMA functions? Does the objective provide clear direction to decision-makers? |
| Reasonableness | <ul style="list-style-type: none"> Can the objective be achieved without imposing unjustified high costs on Council, tangata whenua, stakeholders and the wider community? |
| Achievability | <ul style="list-style-type: none"> Can the objective be achieved by those responsible for implementation? |

Section 32 of the RMA encourages a holistic approach to assessing objectives rather than necessarily looking each objective individually. This recognises that the objectives of a proposal generally work inter-dependently to achieve the purpose of the RMA. As such, the objectives have been grouped in the evaluation below.

| | |
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| <p>Objective GMO-01: <i>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.</i></p> <p>Objective GMO-02: <i>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.</i></p> | |
| Relevance | <p>The objectives relate to the resource management issues of seeking to protect the environment from potential adverse effects of GMOs.</p> <p>The proposed Objectives meet Section 5 of the Act as they promote sustainable management by taking a precautionary approach in response to the scientific uncertainty and potential for significant adverse effects relating to the release of GMOs.</p> <p>The Objectives also ensure unacceptable risks to the community from release of GMOs in the environment are avoided. The Objectives recognises the value of natural and cultural resources in the Far North District, and the need to protect these values from the use of GMOs.</p> <p>The Objectives will sustain the physical resources of the district, now and for future generations, in particular the life supporting capacity of air, water and soil ecosystems, and through the adoption of effective policies, rules and methods, significant potential</p> |

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| | adverse effects on the environment can be avoided. |
| Usefulness | The objectives are consistent with the current operative provisions of the district plan, as well as the policies under the NRPS and proposed regional plan. All these provisions seek to be in accordance with Part 2 of the RMA and provide clear direction to decision makers. |
| Reasonableness | The use of the precautionary approach is reasonable, as it seeks to ensure high environmental, socio-economic and cultural costs so not result upon Council, tangata whenua, stakeholders and the wider community. |
| Achievability | The proposed provisions take a precautionary approach which are achieved to implement as they seek to ensure a high level of certainty and information is provided in relation to any GMO activities within the district. |
| Overall evaluation | |
| On the basis of the above assessment, it is considered that the Objectives outlined represent the most appropriate way to achieve the NRPS and Part 2 of the Act. The objectives seek to address risks of GMOs and particularly to the general release of these, the level of uncertainty that surrounds the impacts of GMOs and the significant adverse effects that could arise if an appropriate level of precaution is not taken. | |

8 Evaluation of Provisions to Achieve the Objectives

8.1 Introduction

Section 32(1)(b) of the RMA requires the evaluation report to examine whether the provisions are the most appropriate way to achieve the objectives by:

- (i) *identifying other reasonably practicable options for achieving the objectives; and*
- (ii) *assessing the efficiency and effectiveness of the provisions in achieving the objectives; and*
- (iii) *summarising the reasons for deciding on the provisions.*

When assessing the efficiency and effectiveness of the provisions in achieving the objectives, section 32(2) of the RMA requires that the assessment:

- (a) *identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for—*
 - (i) *economic growth that are anticipated to be provided or reduced; and*
 - (ii) *employment that are anticipated to be provided or reduced; and*
- (b) *if practicable, quantify the benefits and costs referred to in paragraph (a); and*
- (c) *assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.*

This section provides an assessment of reasonably options and associated provisions (policies, rules and standards) for achieving the objectives in accordance with these requirements.

Each option is assessed in terms of the benefits, costs, and effectiveness and efficiency of the provisions, along with the risks of not acting or acting when information is uncertain or insufficient. For the purposes of this assessment:

- **effectiveness** assesses how successful the provisions are likely to be in achieving the objectives and addressing the identified issues
- **efficiency** measures whether the provisions will be likely to achieve the objectives at the least cost or highest net benefit to society.

The sections below provide an assessment of options (and associated provisions) for achieving the objectives in accordance with sections 32(1)(b) and 32(2) of the RMA.

8.2 Quantification of benefits and costs

Section 32(2)(b) of the RMA requires that, where practicable, the benefits and costs (environmental, economic, social and cultural) of a proposal are quantified. The requirement to quantify benefits and costs if practicable recognises it is often difficult and, in some cases, inappropriate to quantify certain costs and benefits through section 32 evaluations, particularly those relating to non-market values.

As discussed in section 6.3, the scale and significance of the effects of proposed changes for GMOs are assessed as being low due to the proposed objectives being a continuation of the operative objectives. Therefore, exact quantification of the benefits and costs of the different options to achieve the objectives is not considered to be necessary or practicable for GMOs as these have already been extensively and recently covered in PC18 which made the existing provisions operative. Rather this evaluation focuses on providing a qualitative assessment of the environmental, economic, social and cultural benefits and costs provided where practicable.

8.3 Evaluation of options

8.3.1 Option 1: “Do Nothing” (No Specific Regulation)

| Option 1: | | |
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| <ul style="list-style-type: none"> • Provide no controls or specific activity statuses and leave this to higher order documents such as NRPS to provide policy direction • Rely on the provisions of related legislation such as the HSNO Act. | | |
| Benefits | Costs | Risk of acting / not acting |
| <ul style="list-style-type: none"> • Less controls on the introduction of GMOs into the far north which may have potential benefits associated with food production, environmental management and pest control and biopharming. • Minimal time and cost in terms of administrative burden to council of introducing provisions to proposed district plan process and administering them as part of a future operative plan. • Reduced cost to applicants seeking to conduct use of GMOs within the district. | <ul style="list-style-type: none"> • This does not address the significant Resource Management Issue of managing the environmental risk of GMOs. There is a lack of scientific certainty and/or agreement over many issues relating to GMOs ranging from the safety of GM food products to long term environmental effects and effects on ecosystems and ecological processes from releases of GMOs into the environment. • Potential economic cost on non-GM growers and products due to actual and perceived GMO contamination. • Does not address community desires that have been reflected in the operative GMO provisions and NRPS. • Cultural effects arising from the mixing of genes from unrelated species, ecological effects, threats to the integrity of nature, and adverse effects on mauri, whakapapa and tikanga involving kaitiakitanga. • If a GMO operator has inadequate financial resources to cover environmental damage resulting from its activities, the burden tends to | <ul style="list-style-type: none"> • The risk associated with acting on option is high as it does not adopt a precautionary approach. This is an option that has already been considered as not appropriate for managing the potential effects of GMOs. • There is a lower risk of not acting on this option, as it allows for consideration of options that takes a more precautionary approach in relation to GMOs. |

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| | fall on local government and/or its constituents. | |
| <p><u>Effectiveness</u></p> <p>This approach would not effectively give effect to the policy direction of the NRPS and proposed objectives to adopt a precautionary approach to the potential effects of GMOs. The absence of provisions to manage GMOs would also not effectively reflect the level of control desired by the communities (including Māori) to manage GMO activities, as expressed through the operative plan and RPS.</p> | <p><u>Efficiency</u></p> <p>This method would not efficiently manage effects associated with GMOs. Overall, this management approach would result in Council failing to meet its obligations under the RMA with the costs associated with this option outweighing any economic benefits.</p> | |
| <p><u>Overall evaluation</u></p> <p>On balance this option is not considered to be the most appropriate option to achieve the objectives because:</p> <ul style="list-style-type: none"> • A lack of provisions in the proposed plan would not protect the environmental, economic or socio-cultural resources of the Far North • A absence of provisions do not reflect the current level of management applied that has already been established as being desired by the communities (including Māori) to manage GMO activities as expressed through the current operative provisions. The appropriate management of GMOs has been identified in Policy 6.1.2 of the NRPS and the release of GMOs remains a significant issue to tangata whenua as identified in Clause 2.6 of the RPS. • The “do nothing” option does not achieve the purpose of the Act as it does not provide for the sustainable management of resources in the Far North and does not reflect the community aspirations as request via PC18. | | |

8.3.2 Option 2: Proposed approach of maintaining status quo provisions as provided under ODP.

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| <p>Option 2:</p> <ul style="list-style-type: none"> • Adopting the operative provisions as set out (with changes accounting for the Planning Standards). • To adopt a precautionary approach by making outdoor field trial of a GMO, and the use of viable genetically modified veterinary vaccines not of a specific dose and supervised by a veterinarian a discretionary activity. • To ensure that a resource consent granted for the outdoor field trialling of a GMO is subject to conditions that ensures 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. • Apply a prohibited activity status for the outdoor release of GMOs. | | |
| Benefits | Costs | Risk of acting / not acting |
| <ul style="list-style-type: none"> • Due to the weak liability and financial assurance arrangements under the HSNO Act, councils are exposed to meeting the costs of clean-up if the polluter | <ul style="list-style-type: none"> • Some costs for the Council in respect to administering the bond, clean-up activities, and any remediation required. | <ul style="list-style-type: none"> • Overall, this approach is appropriate to act on with low risk as it reflects the current provisions and ensure that a suitable level of accountability |

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| <p>does not pay. The Ministry of Primary Industries is only obliged to clean up illegal releases, not those approved by the EPA that have unexpected effects.</p> <ul style="list-style-type: none">• GMO contamination could have a potentially significant impact on returns to non-GM growers in the district or region and could affect other parts of the country as well.• This approach requires the consent holder to be financially accountable for adverse effects to the extent possible, reducing risk to the community and environment, and provisions for potential clean-up costs to be met.• These provisions have been recently been developed and tested by way of plan change and are consistent with the NRPS and current management of GMOs by other councils. As such, there is a reduced cost on council and constituents to develop alternative provisions.• The community has indicated a desire that a liability regime be implemented that requires those engaging in a GM release to pay compensation for any harm caused by an approved release, as this is not provided for under the HSNO Act.• This policy is designed to avoid the costs for clean-up being met by the Council or its constituents, and greatly reduces the burden of proof required by Council to obtain compensation, as well as the time and costs involved in doing so. | | <p>can be achieved commensurate with the desired outcomes in relation to the issue.</p> |
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Effectiveness

This approach effectively gives effect to the NRPS and ensuring the precautionary management of effects associated with GMOs. This approach is also effective in achieving the proposed objectives by ensuring that costs of damages associated with outdoor field trials or GM vaccines that have not been properly managed are recoverable.

Efficiency

This approach has already been adopted under the operative plan and is consistent with the NRPS and management taken by other councils in the region and also by Auckland Council, providing efficiencies with a common policy approach. There are benefits of ensuring the consent holder is financially accountable for any adverse effects associated with a GMO activity far exceed the cost. This approach ensures that the environment is protected from adverse effects associated with outdoor field trials as it enables the Council to manage any potential effects through conditions, and is therefore efficient and effective in achieving the Objectives.

Overall evaluation

On balance this option is considered to be the most appropriate option to achieve the objectives because:

- The application of the precautionary approach to the use of GMOs is consistent with the approach taken within the operative plan, NRPS, proposed regional plan and Whangārei district plan and overall, promotes consistency in terms of the management of GMOs within the Northern Peninsula.
- It also appropriately responds to the scientific uncertainty associated with the outdoor release of GMOs and the potential to cause significant adverse effects on the environment, economy, and social and cultural well-being.
- By maintaining a full release of a GMO a prohibited activity, a council ensures that any such assessment is either made at a time a council considers sufficient information is available and addressed by way of a private plan change. The onus is then placed on the applicant to demonstrate that there is not only a national benefit (as the EPA is required to determine before issuing a consent) but that there is also a benefit to the area under the council's jurisdiction.
- Overall, this approach would align with Policy 6.1.2 of the NRPS relating to the precautionary approach when introducing genetically modified organisms to the environment where they are scientifically uncertain, unknown, or little understood, but potentially significantly adverse.
- This approach is considered to be an efficient or effective way to achieve the outcomes sought and remains the proposed approach.

9 Summary

This evaluation has been undertaken in accordance with section 32 of the RMA in order to identify the need, benefits, costs and the appropriateness of the proposal having regard to its effectiveness and efficiency in achieving the purpose of the RMA. The evaluation demonstrates that maintaining the status quo for GMO provision is the most appropriate option as-drafted, as it includes the most appropriate objectives, policies and methods to ensure consistency and maintain the integrity of the proposed plan and align with the Northland Regional Policy Statement which directs a precautionary approach to the management of GMOs.

While it is acknowledged that benefits could be achieved from GMOs, including increased productivity in both plants and animals, environmental management and pest control, and biopharming (the modification of organisms for pharmaceutical purposes), the degree of scientific uncertainty associated with the use of GMOs and potential scale of the risks involved currently outweigh the benefits, and these uses should be controlled by a precautionary approach consistent with that currently applied by Far North District Council in the ODP and applied by NRC, Whangārei District and Auckland Councils. At such time that greater scientific certainty and consensus is achieved about the environmental risks, and it can be demonstrated that the economic benefits would outweigh environmental and cultural effects, a Plan Change could be sought to enable release of GMOs into the district.

The information behind the policies and methods promoted in provisions adopted in the ODP is based on international and national evidence and there is little risk associated with the status quo continuing in the PDP as they have only recently been made Operative. The provisions are consistent with a precautionary approach that prohibits activities in the face of scientific uncertainty, particularly where the potential costs are significant and may be irreversible. The provisions are also adaptive. The discretionary activity status for field trials is part of the wider adaptive management approach taken as it is important the proposed GMO provisions do not totally foreclose potential opportunities for the outdoor use of GMOs in the future, should new evidence demonstrate that a particular GMO is safe and provides a net benefit.

Status quo is the most appropriate option to ensure consistency and maintain the integrity of the proposed plan and align with the Northland RPS which directs a precautionary approach to the management of GMOs.

