



WHANGAREI
DISTRICT COUNCIL

GENETICALLY MODIFIED ORGANISMS – PLAN CHANGE 131

SECTION 32 - SUMMARY GUIDE

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DISCLAIMER

This is a summary guide only and does not contain the details of all changes proposed to the District Plan. Copies of the proposed plan change are available on request.

INTRODUCTION

Genetic modification 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. This plan change (131) concerns provisions in the Whangarei District Plan on the use of GMOs.

Plan change 131 has been developed collaboratively over the past 10 years. During this time the community has voiced concerns to Council on the risks of outdoor use of genetically modified organisms in a number of different forums including a 7,000 signature petition in 2001/02, submissions on annual plans, Long Term Council Community Plans, Long Term Plans, district plans and a Colmar Brunton survey undertaken in 2009. Tangata whenua have also expressed ongoing concerns in iwi/hapu management plans and other mediums.

In response to these concerns an Inter-Council Working Party ('the Working Party') on GMO risk evaluation and management options was formed in 2003. The Working Party is made up of the councils in the 'northern region' including Whangarei District Council, Far North District Council, Kaipara District Council, Auckland Council and Northland Regional Council.

The Working Party has commissioned a number of reports on the options available to local authorities for managing the risks of GMOs and has maintained dialogue with the community, iwi and hapu, between local authorities in the northern region and with other local authorities throughout the country.

Participating members of the Working Party determined that GMOs are a significant resource management issue in the northern region and that a precautionary approach to the outdoor use of GMOs is desired by the community. A plan change to include GMO provisions into the district and regional plans of the northern region's local authorities was determined to be the most appropriate way to address regional concerns over the use of GMOs.

Council is therefore proposing to insert provisions on the use of GMOs into the Whangarei District Plan. Council is notifying those people who may be interested in the proposed changes.

This is your opportunity to make a submission. We understand that this is a complicated process. This document tries to summarise what is contained in the full plan change document and section 32 evaluation. Should you have any questions please feel free to contact Council.

This summary outlines the key issues and changes proposed. You can make a submission on the proposed district plan change through the formal public consultation process under the Resource Management Act 1991 (RMA). Proposed Plan Change 131 is available from:

- Whangarei District Council's Customer Services counter at Forum North, Rust Avenue, Whangarei.
- Ruakaka Service Centre, Takutai Place, Ruakaka.
- Whangarei Public Library, Rust Avenue, Whangarei.
- Kamo Public Library, Kamo Road, Whangarei.
- Onerahi Public Library, Commins Road, Onerahi.
- Tikipunga Community Library, 83 Paramount Parade, Tikipunga.
- Our website: www.wdc.govt.nz

**SUBMISSIONS ON PLAN CHANGE 131 – GENETICALLY MODIFIED ORGANISMS CLOSE
AT 4PM ON 9 SEPTEMBER 2014.**

PROPOSED PLAN CHANGE 131 – GENETICALLY MODIFIED ORGANISMS

WHAT ARE GENETICALLY MODIFIED ORGANISMS?

A genetically modified organism (GMO) is an organism whose genetic material has been altered using genetic engineering techniques in a laboratory, along with other organisms derived from those GMOs.

A wide range of genetically modified products are being researched and developed for commercialisation. While the GMOs commercialised to date are in general directed at reducing harvest losses by combating pests and viruses, research into future varieties is attempting to considerably widen the scope of genetically modified uses. This includes improved growth in plants, improved tolerance to environmental conditions and creating entirely new products and sectors of economic activity in agriculture, horticulture, plantation forestry, dairying, aquaculture and medicine.

Most genetic modification use in New Zealand is in contained environments, such as laboratories, and it is predominantly used as a tool for research. At present there are no genetically modified crops grown commercially in New Zealand. There are two genetic modification field trials operating in New Zealand presently, which include research on pine trees (Scion) and genetically engineered cattle, sheep or goats (AgResearch).

HOW ARE GMOs CURRENTLY REGULATED IN NEW ZEALAND?

At a national level the Hazardous Substances and New Organisms Act 1996 (HSNO Act) regulates research into and the release of all new (including genetically modified) organisms in New Zealand. The purpose of the HSNO Act (part 2, sec 4) 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.

The Environmental Protection Authority (the EPA) manages the application process for introducing new organisms under the HSNO Act.

The HSNO Act does not preclude councils developing and implementing district plan provisions under the Resource Management Act 1991 (RMA) that are aimed at managing risks associated with GMO land uses. Provisions in a district plan should not be incompatible with the HSNO provisions, but can apply a greater level of control than those imposed by the EPA under the HSNO Act.

The Working Party has concluded that there are key gaps in the national regulation of GMOs, namely the absence of adequate liability provisions and applicant financial fitness requirements, the absence of a mandatory precautionary approach, and a lack of surety of outcome for local government and communities.

The main benefits from, and support for, regulatory action by local authorities in addition to national regulation include, but are not limited to, the following:

- An assured, community determined level of risk at the local level. The Northland/Auckland communities (as the ultimate risk bearers) have indicated that they want a strong precautionary approach to the risks from GMOs as opposed to HSNO's requirement for the EPA to consider the necessity for caution.
- The avoidance of potential major financial exposure for constituents and councils from possible genetic modification contamination and/or eradication or control of unwanted GMOs, whilst retaining opportunities to benefit from GMOs in the future should such opportunities arise. This can be achieved at very low relative costs to councils compared to the potentially significant costs that councils and constituents could face.
- A strict liability regime, including bond and financial fitness rules, that provides (to the extent possible) for users of GMOs to pay the cost of any damages resulting from that usage. Linked to this is a duty of care to existing conventional and organic farmers that their social and economic well being will not be adversely affected by the introduction of GMOs.
- Local and regional marketing and branding advantages, based at least in part on the GE Free (Genetic Engineering Free) status of the area, in order to seek price premiums for agricultural production and underpin tourism activities.
- A policy position that is representative of the strong cultural concerns of Maori regarding GMOs indicted in iwi and hapu resource management and environmental documents and in other forums, including submissions from Maori on Northland/Auckland planning documents. Given the high proportion of Maori in the Northland/Auckland region, this is of greater significance than nationally.

PROPOSED PLAN CHANGE 131

Plan change 131 proposes to insert a new chapter and to insert new definitions into the Whangarei District Council Operative District Plan. The following summarises the proposed provisions:

- The creation of a district wide GMOs chapter to be inserted into the District Plan that includes:
 - » A description of the purpose and expectations of the new GMO chapter, which is to manage the outdoor use of GMOs.
 - » Eligibility rules that outline what GMO activities are covered and what GMO activities are not covered by the new provisions.
 - » Notification criteria, which states that all applications for resource consent under the proposed GMO provisions must be publicly notified.
 - » Objectives specifying outcomes sought for the outdoor use of GMOs.
 - » Policies specifying courses of action to achieve outcomes sought for the outdoor use of GMOs.
 - » Information requirements for applications for GMO field trials.
 - » General development and performance standards outlining minimum controls without limiting the discretion reserved to Council.

- » Particular matters to be considered when determining the amount of bond required and a monitoring strategy for a GMO discretionary activity.
- New definitions to be inserted into chapter 4, meaning of words in the District Plan for the following terms:
 - » Field Trials (tests)
 - » Genetically Modified Organism and GMO
 - » Release
 - » Environmental Protection Authority and EPA
 - » Hazardous Substances and New Organisms Act and HSNO

The plan provisions relate only to outdoor uses of GMO - either releases to the environment or outdoor field trials. They do not include the use of GMOs in contained facilities, such as hospitals, universities, or research institutions, nor to medicines or food products that do not contain viable GMOs.

The plan provisions are based upon a precautionary approach to the outdoor use of GMOs with the level of precaution related to the level of risk arising from the particular use in question. A precautionary approach, based upon the precautionary principle that has evolved globally, is an adaptive approach to risk management that requires decision makers to exercise caution, including the prohibition or postponement of an activity, when faced with uncertainty (including scientific uncertainty) and insufficient information, particularly in situations of high potential costs and irreversibility.

Based upon such an approach, the plan provisions provide for veterinary vaccines as permitted activities (i.e. they require no planning permission), outdoor field trials as discretionary activities (i.e. they require a consent from council), and releases to the environment as prohibited activities (i.e. no consent can be applied for or granted). This classification is based upon a hierarchy of risks, from negligible for permitted activities through to high risk for prohibited activities. Discretionary activities (outdoor field trials) are subject to development and performance standards, including the requirement for bonds to cover possible economic or environmental damage and on-going monitoring requirements.

To avoid foreclosure of potential opportunities associated with a GMO development that could benefit the district or region, there is the ability to review a particular GMO activity if it were to become evident during the field trial stage or in light of other new information that a particular GMO activity would be of net benefit to the district or region and that potential risks can be managed to the satisfaction of council and the community. A council or a GMO developer can initiate a plan change to alter the status of a GMO activity from prohibited to discretionary. A change to discretionary status for a particular GMO or class of GMOs would then be subject to the prescribed development and performance standards set out in plan change 131, particularly the liability and monitoring provisions.

SECTION 32 EVALUATION

INTRODUCTION

When considering possible district/unitary plan provisions, the earlier research carried out by the Working Party (and included in Volume 2 of the Section 32 Report) was brought together and configured to meet the requirements of section 32 of the RMA. This guide is a summary of the section 32 evaluation undertaken to confirm the appropriateness of proposed plan change 131.

Section 32 – requirements for preparing and publishing evaluation reports - requires a local authority to undertake an evaluation of proposed provisions when formulating a planning document, or a change to a planning document, under the RMA. Essentially, the evaluation is to determine whether the proposed objectives are the most appropriate to achieve the purpose of the Act – the sustainable management of natural and physical resources – as set out in section 5, Part II of the RMA, and whether the policies, rules or other methods are the most appropriate, efficient and effective for achieving the objectives. This may involve consideration of alternative methods to those proposed. The evaluation is also required to take into account the costs and benefits of the proposed provisions and the risk of acting or not acting if there is uncertain or insufficient information about the subject matter.

The Working Party has carried out a thorough evaluation of the necessity for regulation of GMOs at a district and/or regional level in concert with national regulation over an extended period of 10 years. The section 32 analysis and report shows that the provisions outlined in proposed plan change 131 do meet the purpose of the RMA and are the most appropriate to achieve that purpose, that the benefits of the proposed provisions outweigh the costs, and the risks of not acting are greater than the risks of acting.

COSTS AND RISKS

In particular, councils and constituents avoid the risk of incurring substantial financial costs while the cost of the plan change and any contingent costs (including subsequent plan amendment) together would be considerably less than the cost of even one of the minor genetic modification contamination events that have occurred in New Zealand to date. Significant incidents involving genetic modification contamination of non-genetically modified crops or unwanted GMOs that cause environmental harm would each impose costs measured in millions of dollars. There is no adequate liability law to protect against such costs resulting from releases of GMOs that comply with EPA regulations so avoiding or reducing the risk is consistent with councils exercising their duty of care for potentially affected constituents and for prudent financial management.

The administrative costs involved in establishing plan change 131 are in effect the cost of avoiding these risks. While the prospect of any particular event occurring would be difficult to attach a probability to, the differential between the risks and the remedy is so large that the cost can be viewed as an insurance policy premium. In addition, costs on a par with a plan change, if not actually a plan change of some form, may in any case prove difficult to avoid if a community is strongly

mind to seek a precautionary approach or insists the council monitors any future outdoor uses of GMOs in its jurisdiction.

The section 32 evaluation confirmed there are significant risks to local government and their communities from outdoor use of GMOs, including environmental, economic and socio-cultural risks. These risks are difficult to quantify through normal risk analysis given the uncertainty (including scientific uncertainty) and lack of information about those risks. Genetic modification is a relatively new and fast developing technology. There is a lack of scientific agreement on the long term effects of releasing GMOs into the environment and a lack of information on long term environmental consequences. There is uncertainty and disagreement as to the short and long term economic benefits and dis-benefits from GMO crops and animals. And there are different cultural views as to the appropriateness of genetic modification technology and GMOs. The views of Maori are particularly important in this respect.

In addition, the potential adverse effects of releasing GMOs into the environment could be significant – including possible major (and long term) harm. Moreover, these effects could be irreversible. Once released to the environment it is, in most instances, impossible to eradicate such organisms. They are, in effect, there for ever, whatever the consequences.

SUMMARY

Given the above circumstances, along with community preferences expressed in the Colmar Brunton survey carried out by the Working Party in 2009 and in public submissions to, and lobbying of, councils in Northland and Auckland, the section 32 evaluation and report have concluded that a strong precautionary approach to the release of GMOs to the environment is warranted. Such an approach is legitimised by, and indeed inherent to, the RMA, particularly section 32(4)(b), which requires a section 32 evaluation to take into account the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the policies, rules, or other methods, and section 3 – the meaning of effect – which provides for any future effect and any potential effect of low probability which has a high potential impact.

To this end, the section 32 evaluation and report support the prohibition of releases of GMOs to the environment and the requirement for consent as a discretionary activity for GMO field trials. The section 32 analysis also supports provisions that set strict liability rules for all potential economic and environmental harm and the requirement for bonds and proof of financial fitness. However, the section 32 evaluation and report acknowledge the desirability of keeping future options open, and thus support an adaptive risk management approach that would enable on-going review of prohibiting the release of GMOs, and the change of activity status to discretionary should new information come available, or scientific consensus be achieved, that shows that the benefits of releasing a particular GMO, or class of GMOs, outweigh the risks for the Northland and Auckland regions.

APPROPRIATENESS OF OBJECTIVES

Plan change 131 proposes two new objectives. The proposed objectives are specific to GMOs and will apply across the entire District. They are as follows.

Proposed Objective 2.1.1

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 GMOs through the adoption of a precautionary approach, including adaptive responses, to manage uncertainty and lack of information.

Proposed Objective 2.1.2

The sustainable management of the natural and physical resources of the district with respect to the outdoor use of GMOs, a significant resource management issue identified by the community.

Inserting provisions into the District Plan to manage the outdoor use of and potential effects of GMO activities is considered to be the most appropriate way of achieving the purpose of the RMA for this type of activity. The objectives clearly state the desired outcome of providing for outdoor use of GMOs while ensuring potential adverse environmental effects are avoided, or mitigated through a precautionary approach. The objectives also ensure unacceptable risks to the community from the outdoor release of GMOs are avoided. The objectives recognise the value of natural and cultural resources in the District, and the need to protect these values from the outdoor use of GMOs.

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. Through the adoption of effective policies, rules and methods, any potential adverse effects on the environment can be avoided.

The objectives will enable people and communities to provide for their social, economic and cultural well being and for their health and safety by:

- protecting existing primary producers from possible economic harm through genetic modification contamination and loss of markets
- protecting marketing and branding advantages and price premiums for primary producers
- marketing and branding advantages for the tourism sector, and
- respecting socio-cultural differences, particularly the cultural values of Māori.

The objectives 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.

The objectives adopt a precautionary approach to the management of GMOs, reflecting the community's preference.

It is therefore concluded that the objectives are the most appropriate way of achieving the purpose of the RMA.

EFFICIENCY AND EFFECTIVENESS OF THE PROVISIONS IN ACHIEVING THE OBJECTIVES

Plan change 131 is an appropriate response to community aspirations for a process whereby Council can determine acceptable levels of risk and cost exposure with respect to outdoor GMO activities within the district.

The Working Party has repeatedly sought amendments to the HSNO Act to provide such a process within the national regulatory regime, but central government has ruled this out on a number of occasions. Additional controls at the local level are an alternative means of allowing councils to perform duties imposed on them under the Local Government Act 2002 (LGA) and the RMA. The RMA is an effective option, and the most appropriate of those available for addressing community concerns.

A key purpose of plan change 131 is to meet other outcomes or responsibilities, especially those under the LGA and RMA, and the outcome sought is controls that overall will be more stringent. Thus rather than duplication, supplementation is the mechanism being used to achieve increased protection for the community.

Proposed plan change 131 is complementary to the existing controls under the HSNO Act as they are precisely targeted to:

- Fill gaps in the national regulatory regime such as the lack of robust liability provisions for activities that do not breach EPA consents; and
- Set standards to ensure community determined outcomes are achieved relative to an uncertain and / or indeterminate standard for exercising precaution.

As the RMA controls are supplementary and not duplicative, they are the most efficient option for Council to address the significant resource management issue.

In order for a regulatory function to be good quality, it must be efficient, effective, and appropriate to present and anticipated future circumstances. As the foregoing has set out, plan change 131 is effective and appropriate, and it is also the most efficient option available to council.

RISK OF ACTING OR NOT ACTING

The second report commissioned by the Working Party (Community Management of GMOs II: Risks and Response Options, 2005) examined the risks to local government and their communities in Northland and Auckland posed by the outdoor use of GMOs. A series of risks to councils and their constituents were identified and described. These risks can be classed under three general headings: environmental, economic and socio-cultural, and are described in detail in the report. In summary,

Environmental risks include:

- Adverse effects on non-target species, including indigenous flora and fauna
- Genetically modified organisms becoming invasive and disrupting ecosystems
- Altered genes transferring to other organisms

- Adverse effects on habitats including possible reduction in biodiversity, and
- Development of herbicide or pesticide resistance creating ‘super-weeds’ or ‘super-pests’.

Economic risks include:

- Loss of markets through contamination (or perceived contamination) of non-GMO food products
- Negative effects on marketing and branding opportunities, including damage to regional marketing initiatives such as the ‘Naturally Northland’ brand, and damage to tourism
- Costs associated with environmental damage, such as cleanup costs for invasive weeds and pests, and
- Loss of income to conventional or organic primary producers from GE contamination.

Socio-cultural risks include:

- Effects on Maori cultural beliefs (e.g. the concepts of whakapapa, mauri, tikanga, and kaitiakitanga)
- Effects on religious beliefs, e.g. ‘Science playing God’
- Ethical concerns, such as mixing genes from different species including human genes, and
- Effects or perceived effects on human health of food derived from GMOs, pharmaceutical crops, industrial crops, herbicides, pesticides, etc.

Importantly, these effects are generally unpredictable, could be irreversible and possibly substantial, including catastrophic.

The information behind the policies and methods promoted in plan change 131 is based on international and national evidence and there is little risk associated with plan change 131 going ahead. It is consistent with a precautionary approach that prohibits activities in the face of uncertainty, particularly where the potential costs are high and may be irreversible. The risk of not acting (not pursuing plan change 131) is that the significant resource management issue remains unresolved and the resources of the Whangarei district are not managed sustainably.

REASONS FOR DECIDING ON THE PROVISIONS

The provisions are an appropriate response to community aspirations to manage risks associated with GMO activities, and are consistent with the precautionary approach provided for under the RMA, where activities may be prohibited if there is uncertain or insufficient information. Assessment of plan change 131 has also determined that the risk (and cost) arising from acting is low, but that the risks and potential costs arising from not acting are high.

This is supported by four legal opinions from Dr R J Somerville QC that were commissioned during the research and section 32 evaluation process.

FURTHER INFORMATION

Where Can You Get More Information and Make a Submission?

You can obtain more information about proposed plan change 131 – Genetically Modified Organisms and information on how to make a submission from:

- Whangarei District Council's Customer Services counter at Forum North, Rust Avenue, Whangarei.
- Ruakaka Service Centre, Takutai Place, Ruakaka.
- Whangarei Public Library, Rust Avenue, Whangarei.
- Kamo Public Library, Kamo Road, Whangarei.
- Onerahi Public Library, Commins Road, Onerahi.
- Tikipunga Community Library, 83 Paramount Parade, Tikipunga.
- Our website: www.wdc.govt.nz

Anyone can make a submission on this proposal by sending a written submission to the Council using one of the options outlined below:

Post to: Whangarei District Council, Policy and Monitoring Division, Private Bag 9023, Whangarei 0148 (Fax: 09 438 7632),

Deliver to: Whangarei District Council's Customer Services counter at Forum North, Rust Avenue, Whangarei

Electronically: On our website <http://www.wdc.govt.nz/submissions>

Submission forms are available from Whangarei District Council's Customer Services counter at Forum North, Rust Avenue, Whangarei and Ruakaka Service Centre. The submission must be dated, signed by you, and include the following information:

1. Your name, postal address, telephone number and fax number, email address (if applicable)
2. Details of the plan change in respect of which you are making the submission
3. Whether you support or oppose the plan change
4. Your submission, with reasons
5. The decision you wish the Council to make
6. Whether you wish to be heard in support of your submission
7. Which sitting of the joint hearing you wish to speak at (Whangarei or Far North), and
8. If you would consider making a joint presentation at a Council hearing with others who have lodged similar submissions to your own.

**SUBMISSIONS ON PLAN CHANGE 131 – GENETICALLY MODIFIED ORGANISMS CLOSE
AT 4PM ON 9 SEPTEMBER 2014.**

WHAT HAPPENS NEXT?

We will summarise the submissions received on the proposed plan change, which will go on our website at www.wdc.govt.nz. Further submissions will then be advertised, with a joint Council hearing with the Far North District Council to be held during 2015. The joint hearing will be held in two sittings, one in each District. Should you wish to be heard at the hearing please indicate which sitting you wish to speak at.



**WHANGAREI
DISTRICT COUNCIL**

Forum North, Rust Avenue, Private Bag 9023, Whangarei 0148

PHONE: +64 9 430 4200 | FAX: +64 9 438 7632

EMAIL: mailroom@wdc.govt.nz | WEBSITE: www.wdc.govt.nz