

# REGULATING GMO LAND USES UNDER THE RMA

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An update on GE initiative in Northland.

The ability of local authorities to influence the release of genetically modified organisms (GMOs) to the environment and/or manage land uses involving GMOs has been, and continues to be, investigated by local authorities on the Northland peninsula. The results of these investigations may well set precedents for local government throughout New Zealand. This short article is intended to inform other local authorities of the process and outcomes to date.

## Background

The investigations on genetic engineering/genetic modification (GE/GM) undertaken by local authorities in North Auckland/Northland were prompted, in the first instance, by widespread community concerns over the potential release of GMOs to the environment. These concerns have not abated and GE remains an issue that engenders much comment from the community, on-going lobbying by community groups and large numbers of submissions on council strategies and policy documents.

This has led to all, or most, local authorities on the Northland peninsula adopting policies on the release of GMOs to the environment in their Long Term Council Community Plans (LTCCP), in the most part, committing to a precautionary approach to GMO land uses in their district or region. For example, the Whangarei District Council (WDC)

has adopted the following stance towards GE in its LTCCP:

Council will adopt a precautionary approach to the management of biotechnology in general and to GMO land uses in particular. It will continue to investigate ways to maintain the district's environment free of GMOs until outstanding issues such as liability, economic costs and benefits, environmental risks, and cultural effects are resolved.

In response to continued lobbying by the community, the WDC organised a Workshop on Genetic Engineering on 31 October 2003. The workshop was attended by elected representatives and staff from all local authorities in Northland along with Rodney District Council (RDC), a Member of Parliament, representatives from tangata whenua, the Northland Conservation Board, farming groups, business groups, together with members of the public. A report by the Sustainability Council of New Zealand (Local Government and GMOs: Issues for WDC) was presented and discussed at the workshop.

The findings of the report included the following:

1. Under the existing legislation, the release of GMOs to the environment may create financial exposure for local government, including the WDC, and the costs involved could be substantial.
2. The economic benefits to the district and region from the commercial release of GMOs appear to be

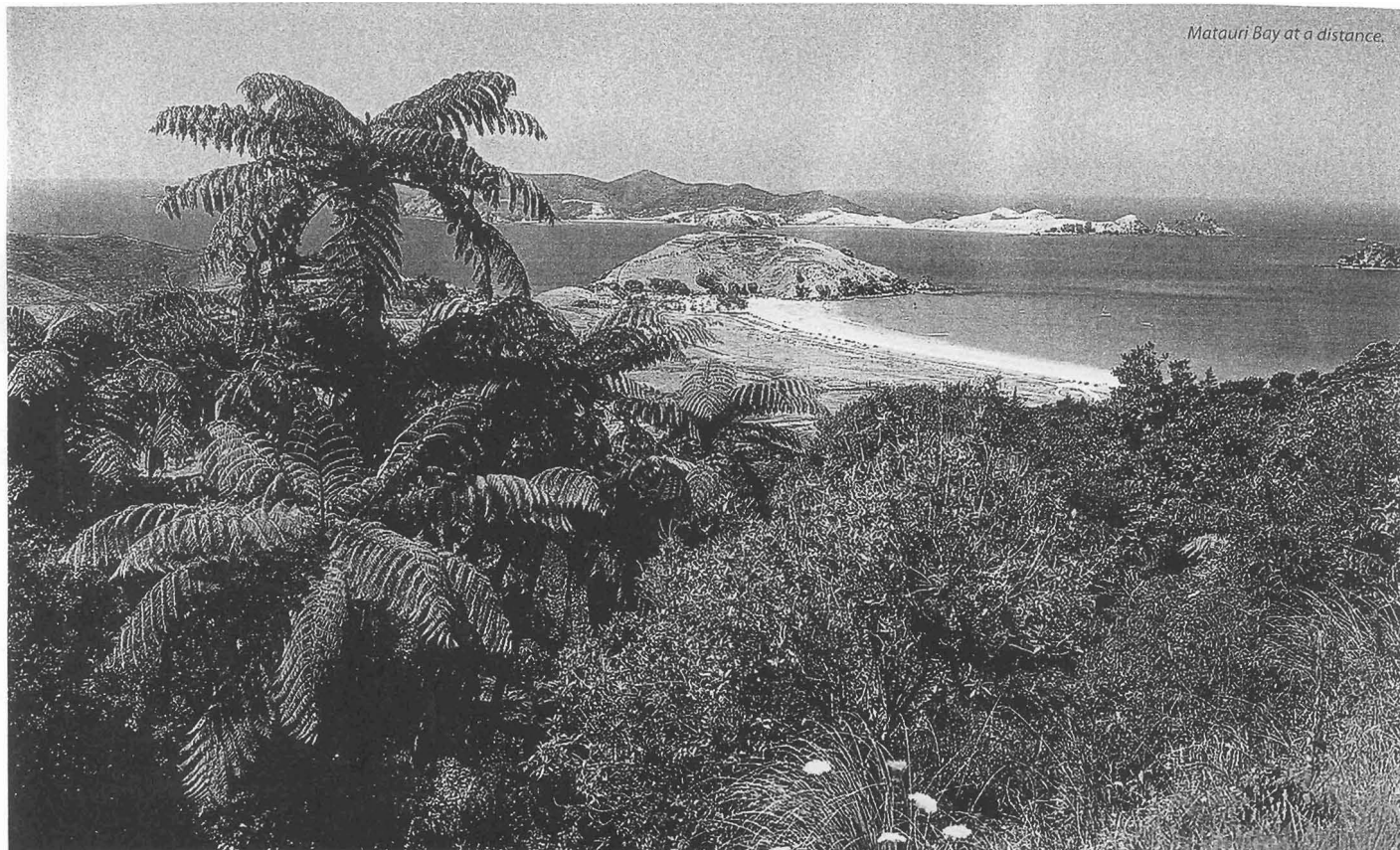
small, whilst the risks could be extremely large.

3. There is considerable uncertainty over the role of local authorities under the Hazardous Substances and New Organisms (HSNO) Act 1996, the Resource Management Act 1991 (RMA) and the Local Government Act 2002 (LGA).

Following the workshop a decision was reached to commission a report from Simon Terry Associates and Dr Royden Somerville QC to explore two broad policy initiatives to address those issues that were continuing to cause anxiety to both the Northland community and their elected representatives. These were:

1. Did local authorities have jurisdiction under the RMA and/or LGA to regulate local GMO land uses over and above regulation imposed at a national level by the Environmental Risk Management Authority (ERMA) under the HSNO Act. If so, what form could this regulation take?
2. Could changes be made to the HSNO Act to allow local authorities to protect their interests, and the interests of their communities, regarding the release of GMOs into the environment?

This report was to be commissioned and financed on a collaborative basis involving all Northland local authorities, including WDC, Far North District Council (FNDC), Kaipara District Council (KDC) along with RDC, the Northland Regional Council (NRC) and Local Government New Zealand (LGNZ).



## First GE Report and Legal Opinion

The report (*Community Management of GMOs: Issues, Options and Partnership with Government*), based upon the Dr Somerville QC legal opinion, found that the HSNO Act does not preclude management of activities involving GMOs in the environment by local authorities under the RMA or the LGA. In other words, local authorities do have jurisdiction to manage land uses involving GMOs in the environment under the RMA and LGA over and above the regulation prescribed nationally under the HSNO Act. For example, Dr Somerville QC stated in this regard:

"I am of the opinion that there is jurisdiction under the RMA for the WDC and the Environment Court to control land uses regarding activities which involve outdoor field-testing or the release of GMOs for research or commercial use, in order to promote the sustainable management of natural and physical resources... There is nothing in the HSNO Act or the Hazardous Substances and New Organisms Amendment Act 2003 to preclude land use controls being included in district plans pursuant to the RMA."

This view on jurisdiction is accepted by the Crown Law Office in opinions sought by the Ministry for the Environment (MfE) and has not been challenged in statements by the Minister for the Environment on behalf of Central Government. All recognise that as the law stands local authorities

do have jurisdiction under the RMA and LGA to address community concerns about GMO land uses. There are differing views, however, on whether local and/or regional regulation under the RMA could be successfully supported by a section 32 analysis.

The Report also argued that provisions in the District Plan would be the most appropriate mechanism to regulate activities involving GMOs in the environment at a local or regional level. There are a range of approaches to regulating such land uses, including total prohibition, selective prohibition, spatial management areas, or case specific regulation through scrutiny of discretionary or non-complying activities. To successfully impose such regulation a local authority would need to show through a RMA section 32 (cost/benefit) analysis why this regulation was necessary over and above that prescribed nationally under the HSNO Act. The report outlined a number of reasons local authorities could use as the basis for local or regional regulation. These include:

The desire to set in place a liability regime that would require those releasing GMOs to the environment to pay compensation or provide a bond in case of future harm caused by an ERMA approved release together with proof of financial fitness to pay such compensation; Local economic effects, particularly effects on

existing land users and marketing advantages in the district or region;

- Ethical-cultural effects on local Maori and other groups or individuals in the district or regional community.

In regard to the LGA, the report found that the LTCCP formulated under the LGA could be legitimately used to set a policy direction and a precautionary approach to managing activities involving GMOs in the environment. However, the use of bylaws under the LGA regulating such land uses could have difficulty surviving legal challenge.

The report also found that amendment of the HSNO Act to allow territorial and regional authorities to set local and/or regional controls over and above those set nationally by ERMA would provide a more direct means to achieving the desired outcomes sought by a community in regard to GMO land uses in its district or region. Such amendments could provide for:

- The ability of local authorities to issue policy statements on GMO land uses under an amended HSNO Act such that ERMA would be required to accommodate those policy statements in its decisions.
- The option to examine individual applications in tandem with ERMA assessments and, if required, to set stricter controls to apply within the local authority boundaries. However, it is unlikely that the present

government will initiate such amendments to the HSNQ Act. During submissions on the New Organisms and Other Matters (NOOM) Bill, LGNZ and a large number of local authorities lobbied for such amendments or, at the least, an amendment of the HSNQ Act to clarify local governments' role in the management of GMO activities in the environment. Central government chose to ignore those submissions.

The Report concluded with a number of recommendations foremost of which was for the WDC to liaise with other local authorities north of Auckland to discuss the possibility of a common approach to managing activities involving GMOs in the environment at a local and/or regional level under the RMA and LGA. Setting up a regional working party on genetic engineering was suggested as a useful way forward.

**Inter-Council Working Party on 3**

Subsequently, on 25 June 2004, a meeting of representatives from WDC, KDC, RDC, FNDC, Waitakere City Council (WCC), and NRC convened to discuss ways of progressing this issue. At the meeting a process was agreed upon to advance the project, along with timeframes and costs.

The first stage was the production of a Risk Evaluation and Options Report, which would

progress the project to the point where individual councils could select a particular option for addressing community concerns over release of GMOs into the environment.

The focus of the study was to examine in greater depth the risks to local government and their communities in Northland posed by GMO releases to the environment. In brief, the report was to identify specific sources of risk for local government, including environmental risks from releasing GMOs into the environment, economic risks to the community and to local government, ethical-cultural risks to Maori and other groups/individuals, and financial risks in the form of liability (or lack of) and compensation for damage caused by GMOs, including possible 'catastrophic' damage. Following the analysis of risks, options to address those risks would be examined. These would include all the various mechanisms available under the RMA, ranging from doing nothing to total prohibition and those in between such as scrutiny of individual 3MO makers in council could select, in principle, a favoured response option to the risks arising from the outdoor use of GMOs.

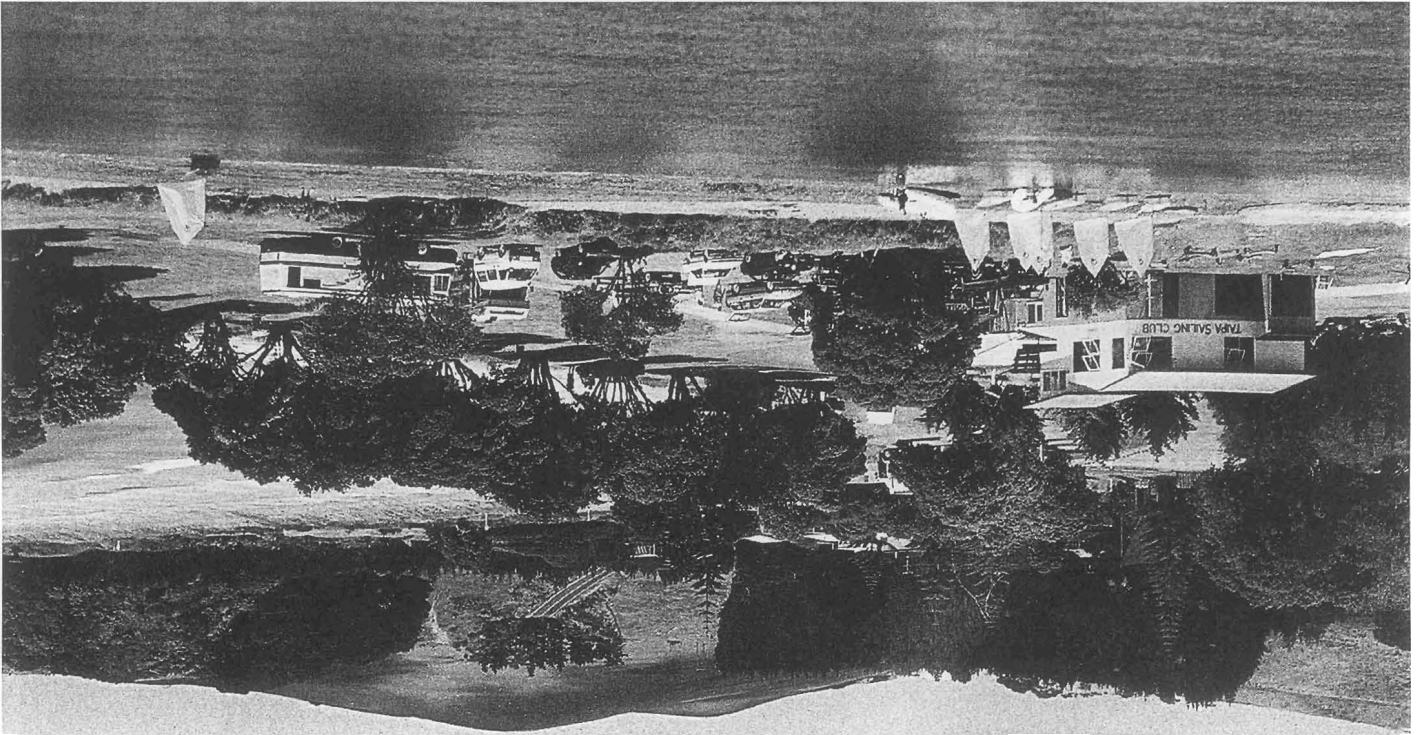
The next stage (if it were to proceed) would tend to involve agreement by all or most councils

on a common approach. (There are options that could be attractive for individual councils to pursue in the absence of a common approach, but the Working Group is strongly targeting a common approach in the first instance.) If an agreed option was decided upon that involved regulation under the RMA, further work would be required to draw up the necessary District Plan change and complete the supporting section 32 analysis.

At the end of this second stage, each territorial authority would have a complete plan change and a section 32 report supporting such a plan change. On the other hand, if agreement was not reached by the participating councils at the end of stage 1, or the councils agreed not proceed on the issue, the second stage of the project would not be necessary. In effect, the joint initiative would come to an end.

**Second 3 Report and Legal Opinion**

A consortium, consisting of Mitchell Partnerships and Simon Terry Associates, together with Dr Royden Somerville QC, were provided with a brief and were commissioned to produce the Risks Evaluation and Options Report and accompanying legal analysis. An independent review of the Report by Karen Cronin, senior lecturer at the School of Earth Sciences at Victoria University



and independent consultant on science policy and communication, was also subsequently commissioned.

As the title suggests, the Risks and Options Report examined in detail the risks posed to northern councils and their communities by the release of GMOs to the environment. It then outlined and evaluated a number of response options to address those risks. The risks can be grouped under three headings: environmental, economic, and socio-cultural. Liability issues relating to those risks were also discussed.

Environmental risks include adverse effects on other species, including indigenous flora and fauna, from horizontal gene transfer; adverse effects on ecology and ecosystems from GMOs, both invasive and non-invasive, including possible reduction in biodiversity; development of herbicide or pesticide resistance in weeds or pests, i.e. emergence of 'superweeds' and 'superpests'; and the unpredictable and irreversible nature of some ecological and environmental effects.

Economic risks include the loss of income through contamination (or even perceived contamination) of non-GE crops or products triggering market rejection of produce (this has already occurred in New Zealand due to the importation of contaminated seed); negative effects on marketing and branding opportunities, e.g. loss of 'clean green' image and 'Naturally Northland' brand. This represents a loss to both individual producers, tourist operators and to district/regional organisations; and the costs associated with environmental damage, such as cleanup costs for invasive weeds and pests in reserves, parks, and open space.

Socio-cultural risks include effects on Maori cultural beliefs (the concepts of whakapapa, mauri, tikanga, and kaitiakitanga, for example); effects on religious beliefs, i.e. science playing God, interfering with the 'natural order' of things, altering God's work, etc.; Other ethical concerns, such as mixing different species' genotypes, e.g. inserting frog genes into tomatoes, or non-human genes into humans; and the effects on human health from

GE food, pharmaceutical crops, industrial crops, contamination of food, etc.

Liability issues revolve around the question of who pays for financial losses and/or cleanup costs should a GMO release result in any of the adverse economic or environmental effects listed above. For example, who suffers the cost if a conventional or organic farmer is unable to sell his or her produce because of contamination from GE crops? Also, who pays for environmental damage, such as the cleanup costs associated with invasive weeds or pests infesting council reserves, parks or open space?

At present, under the HSNO Act, there is no liability to the party releasing GMOs to the environment for damage resulting from a release carried out in accordance with an ERMA approval. There is also no requirement on applicants to prove financial fitness in case of damage and no requirement for posting bonds to recover costs should damage occur. The parties who cause the damage are not held financially accountable. Therefore, costs will tend to fall on affected parties (neighbouring farmers, existing tourist operators, etc.) and on local government, both regional and territorial.

The Report then proceeded to outline and evaluate various options that are available under the RMA to address the above risks. All options (apart from the do-nothing option) involve inserting provisions in territorial authority District Plans to address in differing ways the potential risks arising from GMO land uses.

Firstly, the liability issues could be addressed by way of performance standards in District Plans or conditions attached to resource consents that require financial accountability for environmental damage and avoidance of economic loss. Consent conditions may be able to be used to recover financial losses. The use of bonds to cover potential damage is also available under the RMA and could be made mandatory in District Plans.

Secondly, the risks posed by different classes of GMOs could be addressed by designating different GMO land uses as either discretionary or prohibited

activities in District Plans. The Report outlined four options including making all GMO land uses discretionary activities, prohibiting all GMO land uses, along with two different combinations of discretionary and prohibited activities.

The Report emphasised that decisions to prohibit GMO land uses are reversible. That is, if particular GMO land uses were shown in the future to be advantageous to the district whilst not imposing substantial costs or risks those land uses could be removed from the prohibited status and deemed to be permitted or discretionary activities. On the other hand, decisions to allow GMO land uses are, by and large, irreversible. Once released to the environment GMOs are most likely there for ever, irrespective of the consequences. In addition, once GMOs are released commercially, the district's/region's GE Free status is permanently lost, along with any marketing and branding advantages that GE Free status afforded.

### Present Situation

The Risks and Options Report recommended a joint community consultation programme as the next stage in the GE initiative. Because communities, along with councils, are the ultimate risk bearers of GMO land uses it is argued that it is a reasonable expectation to consult with them on the level of risk they are prepared to carry. In this way, councils and their communities can arrive at an acceptable level of risk they are prepared to carry, along with an appropriate management system to lower risks from GMO land uses to that agreed level.

At the time of writing, the Risks and Options Report, and associated documents, have been received by five of the six councils participating in the northern initiative. Agenda items outlining possible future courses of action have also been discussed by these councils. To date, the WDC, RDC and WCC have all passed resolutions to continue support of the regional collaborative approach to the release of GMOs to the environment and to participate in a joint community consultation programme with other local authorities on the Northland peninsula. All have committed funding

towards this end. The KDC has deferred a decision until after a workshop to discuss the Report. The NRC has also deferred a decision to allow further deliberation. The FNDC is expected to receive the Report in the near future.

Thus, it looks likely that all, or most, local authorities north of Auckland will determine that the risks outlined in the Risks and Options Report on GE, including questions over liability, do warrant further investigation by local government; will resolve to take a precautionary approach towards the risks involved with the release of GMOs to the environment; and will continue to support a northern regional approach to further investigations into a possible regional regulatory regime designed to minimise the risks and resolve questions over liability.

And all, or most, councils look likely to agree to participate in, and jointly fund, a community consultation programme in collaboration with other local authorities on the Northland peninsula to gauge the level of community support for managing GMO land uses at a local and/or regional level.

## Conclusions

The collaborative approach undertaken by local authorities in the Northland peninsula has been a cautious yet responsible way to proceed with this highly contentious issue. It is an excellent example of local government working together to address common concerns raised by their respective communities. It has received much favourable comment from the local and regional community and is being viewed by the rest of New Zealand with much interest.

It has also been a fiscally responsible approach to adopt. By sharing the costs of research and possible regulation amongst all local authorities in the North Auckland/Northland region, the cost to individual councils and to ratepayers has been minimised.

The rationale for the collaborative approach was two-fold. Firstly, to lower costs, both for further research and for future District Plan changes if that was the course of action agreed to. Secondly, to ensure regulation by local authorities under the RMA and LGA was most effective it would be best coordinated and implemented on a regional basis. Individual district or city councils could regulate unilaterally on aspects dealing with liability, such as compensation requirements, posting bonds for

GMO releases, etc., but would have difficulty enforcing GMO exclusion zones, for example.

On a regional basis, however, there is a realistic possibility of setting in place a comprehensive system of management under the RMA and LGA if that system is agreed to by all (or most) local authorities in the region. For example, because of its unique geography, the Northland peninsula is especially well placed to undertake such a regional approach. Should all (or most) territorial authorities north of the Auckland urban centre agree upon a common regulatory system (including exclusion zones) it is possible that this could be successfully implemented, administered and enforced.

## References

- Cronin, Karen. 2005. Review of GE Issues and Options Report for Whangarei District Council. Independent review prepared for the WDC in association with the FNDC, KDC, RDC and WCC.
- Simon Terry Associates. 2004. Community Management of GMOs: issues, Options and Partnership with Government. A report prepared for the WD Council, in association with the FNDC, KDC, RDC, NRC and LGNZ.
- Simon Terry Associates and Mitchell Partnerships. 2005. Community Management of GMOs II: Risks and Response Options. A report prepared for the WDC in association with the FNDC, KDC, RDC and WCC.
- Somerville, R.J. 2004. Interim Opinion on Land Use Controls and GMOs. Legal opinion prepared for WDC. In Community Management of GMOs: Issues, Options, and Partnership with Government, Simon Terry Associates. A report prepared for the WDC, in association with the FNDC, KDC, RDC, NRC and LGNZ.
- Somerville, R.J. 2005. Opinion on Land Use Controls and GMOs. Legal opinion prepared for WDC, in association with FNDC, KDC, RDC, and WCC.
- Sustainability Council of New Zealand. 2003. Local Government and GM Organisms: Issues for WDC. A report prepared for the WDC.

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