BEFORE THE WHANGAREI AND FAR NORTH DISTRICT COUNCILS JOINT HEARINGS PANEL

In the matter of the Resource Management Act 1991

And

In the matter of Plan Change 131 and Plan Change 18 - Genetically Modified Organisms

LEGAL SUBMISSIONS ON BEHALF OF PASTORAL GENOMICS LIMITED (SUBMITTER NUMBER PC18-14)

31 May 2016

INTRODUCTION

1 These submissions are on behalf of Pastoral Genomics Limited (**Pastoral Genomics**).

2 Pastoral Genomics is a New Zealand research consortium for forage improvement through biotechnology. Partner organisations in Pastoral Genomics include DairyNZ, Beef and LambNZ, Deer Industry NZ, Grasslands Innovation and NZ Agriseeds.

3 The outcomes achieved by Pastoral Genomics have been to improve plant development and modification programmes for the benefit of NZ pastoral farmers – but within robust guidelines so as to manage plant programmes within internationally recognised and developed best practice.

4 The submission by Pastoral Genomics is focused on the inclusion of provisions relating to Genetically Modified Organisms ("GMOs") within the proposed Far North District Plan (**the proposed Plan**) as set out in Plan Change 18, with the overall relief being that the provisions are amended to reflect both field testing and release of GMOs to be a permitted activity. The points raised by Pastoral Genomics also apply equally to Plan Change 131 to the Whangarei District Plan.

GM SCENARIO FOR DEVELOPMENT OF DROUGHT RESISTANT RYE-GRASS

5 As background to these submissions, any applicant wishing to undertake research into the development of drought-tolerant rye-grass GM cultivars would be required to pass through the following steps:

5.1 Containment testing approval – considered by full Environmental Protection Agency ("**EPA**") hearing, publicly notified and determined under the current Hazardous Substances and New Organisms Act ("**HSNO Act**").

5.2 Field trials – require a separate hearing, again publicly notified, and subject to full hearing with consideration of both national and localised issues associated with the testing. Conditions imposed on any approval, with MPI being the relevant Ministry for control.

5.3 Release – a third publicly notified process, subject to full hearing; imposition of conditions, and subject to controls.

6 The liability and penalty provisions set out in the HSNO Act apply at all of the above stages – these provisions are explained in detail further on.

SUMMARY

7 Considering the recent Environment Court decision in *Federated Farmers of New Zealand v Northland Regional Council*[1], it is accepted for the purpose of these submissions that jurisdiction does exist for the FNDC/WDC Councils (**the Councils**) to introduce provisions relating to GMOs. However we note that this decision is subject to an appeal to the High Court by Federated Farmers which could result in a finding that no jurisdiction in fact exists.

8 However, despite this jurisdiction, the provisions in Plan Change 18 do not meet the statutory tests under the Resource Management Act 1991 (**RMA**). In particular, when considered in light of the comprehensive provisions that exist under the HSNO Act, the provisions do not meet the requirements of s 32 of the RMA.

9 A comprehensive submission was filed on behalf of Pastoral Genomics and we therefore do not propose to address each submission point, but focus on a number of legal issues arising out of the submission, including:

9.1 The implications of the *Federated Farmers* case;

9.2 Section 32 and section 42A;

9.3 The proper use of bonds;

9.4 The proposed activity status for field trials and release; and

9.5 Proper assessment of risk under the RMA.

ENVIRONMENT COURT DECISION IN *FEDERATED FARMERS* CASE

10 The Environment Court in *Federated Farmers* considered whether the HSNO Act was the sole regulator of GMOs in New Zealand, or whether some level of regulation was able to be undertaken under the RMA. The decision and analysis is confined to issues affecting a Regional Council and the decision expressly limits its views to regional issues.

11 The matter was determined purely as a point of law – based on current legislation. Ultimately, it was determined that the HSNO Act does not operate as a code, and there is

[1] [2015] NZEnvC 89

jurisdiction under the RMA for regional councils to make provision for the control of GMOs in planning documents.

12 However, the decision does not establish a mandate that a regional or district council must consider the regulation of GMOs. The Court clarified the issue of scope under the RMA – but the Court was neutral as to whether a Council, turning its mind to the introduction of GM controls, would produce a "better outcome" for the environment including its people and communities.

13 The issue for your determination today is whether the controls set out in the proposed Plan change would produce a better outcome for Northland.

14 Determination of a better outcome must be based on a balanced assessment of all of the issues on GM use and testing and it must be supported by the views of experts, on the economic, ecological, cultural, and community benefits and implications arising from the change to the plan.

15 The case does not require you to look at GM in isolation from other controls. You are entitled to assume that current HSNO legislation is in place, and operating as the statutory regime intended it to. You cannot presume in your analysis that the legislation is to any degree deficient or that it will not be administered as Parliament intended.

16 Somewhat more difficult to glean from the decision, is the point of difference between the Acts. The decision draws the difference as the types of organisms each of the Acts purport to control. The HSNO Act regulates the potential adverse effects of **new** organisms, up until the act of approving them for release. It was found[2] that the RMA controls **all** organisms. Therefore, if the HSNO Act was the only applicable piece of legislation, GMOs would not be under legislative control once released, as HSNO Act would cease to apply. The judge considered this an "awkward proposition".

17 The decision[3] does refer to the fact that the policy of regional or district councils regulating GMOs is a matter that should be left entirely to Parliament – this decision was simply interpreting the law as it currently stands. If the reference to Parliament's function to regulate controls is to have any relevance, it must be in the context that there is at least some need for reform in this area – and that the reform should be towards clarifying overlapping statutory responsibilities – but like the Judge, this is not a matter for your deliberations today.

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[2] At paragraph [45]
[3] At paragraph [53]

18 By way of background we note that the Resource Legislation Amendment Bill currently before Parliament proposes a new section 360D which would (amongst other matters) allow regulations to be made to prohibit rules, where those rules would duplicate, overlap, or deal with the same subject matter as included in other legislation. This recognises that where there are specialist matters covered by other legislation it may not be appropriate for controls to also be included under the RMA, and section 360D would be a mechanism for addressing this. If this section is adopted then regulations could be made to prohibit controls on GMOs under the RMA on the basis that this is already regulated under the HSNO Act.

19 It is also relevant to mention here the Select Committee Report on what became the Hazardous` Substances and New Organisms Amendment Act 2003 Act stated in response to submissions regarding a lack of clarity in relation to the role of local government:[4]

> Government members believe that this regime is clear. Local government does not have powers under the Resource Management Act 1991 or the Local Government Act 2002 to regulate genetically modified organisms. Such regulation is the role of the Authority under the principal Act. The Authority is a specialist body and responsibility should lie with it and not with local government.

20 Despite the fact that the above was clearly not considered to be binding by the Court in *Federated Farmers,* it should still be in the forefront of the Panel's mind when making the decision with relation to Northland that Government did not consider this to be an area where local government should intervene.

21 We have commented on this decision further later in these legal submissions.

SECTION 32 ANALYSIS

22 Section 74 outlines the matters that must be considered by a territorial authority in preparing and changing its district plan. This includes its obligation to prepare an evaluation report in accordance with s 32 and its obligation to have particular regard to an evaluation report prepared in accordance with s 32.

23 The Council is required to comply with s 32 which provides:

> (1) An evaluation report required under this Act must –

[4] New Organisms and Other Matters Bill as reported from the Education and Science Committee, page 5.

(a) Examine the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of this Act; and

(b) Examine whether the provisions in the proposal 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; and

(c) Contain a level of detail that corresponds to the scale and significance of the environmental, economic, social and cultural effects that are anticipated from the implementation of the proposal.

(2) An assessment under subsection (1)(b)(ii) must –

(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.

24 When assessing the costs and benefits this must be done in light of the existing HSNO regime – that is, the assessment must be of the costs and benefits of the provisions over and above the provisions of HSNO. The framework of the RMA is to also rely on other legislation to control effects which have an effect on the environment.

25 As can be seen above, there is a requirement when considering the rules to determine if the proposal is the most efficient and effective way of achieving the objectives of the Plan. As will be explained further below, the proposed discretionary and prohibited status for the field testing and release of GMOs is neither efficient nor effective. Therefore, the proposal fails a fundamental step of the s 32 consideration.

26 The process suggested by the Council involves significant duplication of processes. This duplication applies irrespective of which side of the GMO 'fence' you sit on.

27 Therefore, in order to reach a conclusion on the appropriateness of the proposed plan provisions, and their efficiency and effectiveness, it is necessary to first understand the scope of the HSNO Act and the control that already exists under that Act. The process existing under the HSNO Act is outlined below.

HSNO Act

28 As set out above, it is necessary to consider the comprehensive nature of the HSNO Act before determining whether an additional layer of regulation under the RMA is justified. Throughout these legal submissions, we will establish that the alleged gaps in the HSNO process, which the Council is relying on to justify the proposed GMO provisions, are all covered under the HSNO process.

Environmental Protection Agency

29 The EPA is the specialist body responsible for implementing the HSNO Act. Its specialist role follows international trends to have one agency, with expertise, to regulate any trialling and/or release, irrespective of scale or the nature of the proposal.

30 In comparison, local authorities lack the necessary expertise given the technical complexity of assessing GMO applications which was recognised in the Resource Management Reform Proposals 2013 which stated:

> *… A national level approach to managing GMOs ensures consistency throughout New Zealand and given the technical complexity of assessing GMO applications ensures that one agency (the EPA) is adequately resourced to provide this service. The EPA has the necessary risk assessment, legal, policy and scientific expertise required to consider GMO applications.*
>
> *The proposal to restrict RMA controls on GMOs will not weaken the existing regulatory framework under the Hazardous Substances and New Organisms Act 1996, rather it will*

> *prevent duplication, confusion and complications that would arise from controls being imposed on a council by council basis.*

31 For all applications, the EPA must carry out a detailed risk assessment. This assessment takes into account social, economic, environmental and cultural factors. The public is given the opportunity to submit on applications, and all submissions must be considered by the EPA when making a decision.

Key Provisions

32 The HSNO Act prohibits the importation, development, field testing, or release of any new organism otherwise than in accordance with an approval issued by the EPA.[5]

33 The HSNO Act is "effects based", as is the RMA. It sets out controls which are directed towards managing the effects of new organisms, not the organisms themselves.

34 As recognised by the Court in both the *Federated Farmers* case and *NZ Forest Research Institute Limited v The Bay of Plenty Regional Council*[6] sections 4, 5 and 6 of the HSNO Act strongly echo their counterparts in the RMA.

35 The Act requires decision makers to exercise their functions, powers and duties to achieve the purpose of the Act. The purpose of the HSNO Act is:

> To protect the environment, and health and safety of people and communities, by preventing or managing the adverse effects of hazardous substances and new organisms.

36 The purpose is also guided by principles relating to the life-supporting capacity of the environment; the economic, social and cultural wellbeing of people and communities; and the reasonably foreseeable needs of future generations.[7]

37 In achieving the purpose of the Act all persons exercising functions, powers and duties are to take into account (amongst other matters) the economic and related benefits and costs of using a particular hazardous substance or new organism.

38 The EPA is required to recognise and take into account risks, benefits and other impacts associated with an organism in an application. When evaluating the application the EPA must take these into account those risks costs and benefits associated with the

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[5] HSNO Act, s 25.
[6] [2013] NZEnvC 298
[7] HSNO Act, Part II.

application, whether they are monetary or non- monetary, their magnitude or expected value, the uncertainty bounds on the expected value and the distributional effects of costs and benefits over time, space and groups in the community.[8]

39 The Methodology Order requires the Authority to have regard to the extent to which the following risk characteristics exist:

39.1 exposure to the risk is involuntary:

39.2 the risk will persist over time:

39.3 the risk is subject to uncontrollable spread and is likely to extend its effects beyond the immediate location of incidence:

39.4 the potential adverse effects are irreversible:

39.5 the risk is not known or understood by the general public and there is little experience or understanding of possible measures for managing the potential adverse effects.

Process for approval

40 Applications to the EPA for approval are required to be publicly notified in newspapers throughout the country, if they are to import any new organism for release, or to release any new organism from containment, to field test a GMO, for conditional approval and emergency applications.[9]

41 Any person can make a written submission on a notified application and request a public hearing of the application. All submitters are entitled to be heard and to present evidence.[10]

42 When the EPA receives an application, it is reviewed by advisors with scientific expertise. If these advisors consider the application is not sufficient to enable a comprehensive decision to be made, the EPA can request additional information from the applicant, or it can appoint consultants with specialist knowledge if it is considered necessary.

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[8] Hazardous Substances and New Organisms (Methodology) Order 1998 (SR 1998/217), Schedule, cls 13, 14.
[9] HSNO Act, s53.
[10] HSNO Act, s 61(8).

43 The specialist provisions in HSNO contain no ability to dovetail with RMA processes. The only outcome will be duplication of processes for an applicant. The perusal of an application to the EPA will clearly identify the degree of expertise required to assess an application and in all likelihood those same experts would need to be re-employed for the assessment at Council level.

Economic effects

44 Policy 19.4.2 in Plan Change 18 seems to rely heavily on the section 32 report economic justifications, which establishes an impression that the HSNO Act cannot, or does not, take into account economic effects and necessary controls.

45 This is incorrect, as the HSNO Act does require a decision maker to include a consideration of economic effects, for example in the following provisions:

45.1 Section 5(b) requires decision makers to recognise and provide for the maintenance and enhancement of the capacity of people and communities to provide for their economic well-being.

45.2 Section 6(e) requires them to take into account "the economic and related benefits and costs of using a particular hazardous substance or new organism".

45.3 The definition of 'environment' gives explicit recognition to the role of economic considerations in the environmental system, among other things.

Liability provisions

46 Part 7A of the Act, introduced by the 2003 Amendment Act, provides pecuniary penalties and civil liability for breaches relating to GMOs. Section 124G provides:

> (1) A person is liable in damages for any loss or damage caused by any act or omission of the person while:
>
> (a) Developing, field testing, or releasing a new organism in breach of this Act:
>
> (b) Possessing is disposing of any new organism imported, … developed, or released in breach of this Act; or
>
> (c) Failing to comply with any controls relating to a new organism

(i) Imposed by any approval granted under this Act; or

(ii) Specified in any regulations made under this Act.

(2) A person is liable under subsection (1) whether or not –

(a) The person intended the act, omission, or breach; or

(b) The person was taking reasonable care when the act, omission, or breach occurred.

47 Therefore, if an activity breaches a statutory requirement for GMOs, then the company/person/organisation will be strictly liable to anyone harmed by the activity. Liability can occur without fault, although certain defences are available. Any person will automatically be liable in damages for any loss or damage caused by any act or omission of the person breaching the Act, unless they can prove one of the defences applies.

48 The Act allows the Crown to take legal action against anyone breaching the Act, regardless of whether or not the breach has resulted in any harm to a third party, to the environment or public safety.

49 The Act sets out the following maximum penalties that can be imposed for a breach of the Act:

(a) In the case of an individual, $500,000; or

(b) In the case of a body corporate, the greater of:

(i) $10,000,000; or

(ii) If it can be readily ascertained if the Court is satisfied that the contravention occurred in the course of producing a commercial gain, three times the value of any commercial gain resulting from the contravention; or

(iii) If the commercial gain cannot be readily ascertained, 10% of the turnover of the body corporate and all of its interconnected bodies corporates (if any).

50 Therefore the HSNO Act is comprehensive –with respect to the application process; the decision making process and the liability regime.

Why National-level decision making is appropriate

51 The New Zealand population and landmass is comparatively small, and the 'clean and green' branding applies to the entire country – this is not unique to the Northland region. It is accepted that GMOs, if completely unregulated, could adversely affect this clean green image, as could various other activities. Therefore, it is appropriate that these types of activities are regulated at a national level, rather than a, local or regional council approach.

52 Furthermore, many farming entities have properties in different Council jurisdictions and most agricultural input suppliers and processors or marketers of agricultural produce operate nationally so different GMO rules in different locations will hinder commerce.

53 A "release" decision of the EPA is a release subject, if necessary, to conditions (e.g. a requirement for a 100m buffer strips or a restriction that the crop only to be used as animal feed) – but it is unlikely to contain measures that are effective in recognizing the different activity status between Councils, or Council boundaries.

54 As already described, the EPA is a specialist body, established especially for the purpose of addressing applications under the HSNO Act. The science of GMOs is complex and specific, and the field evolves rapidly. Therefore, to assess the risk and appropriateness of the applicant GMO, expertise is required. The HSNO Committee is comprised of experts from different fields, who, between them, are appropriately qualified to address applications that are made under the HSNO Act. To replicate the work that this Committee does, particularly given the small size of the New Zealand scientific community qualified to undertake the task, would be an inefficient use of resources.

GMO Free Zones

55 A justification for the controls under the Plan seems to be that it would allow regions to establish GMO free zones, which would then ensure 'GMO free' branding would be protected.

56 This concept was considered by the 2001 Royal Commission on Genetic Modification, who outlined the following issues at page 337:

> *First, it would require widespread acceptance in a given region before it could be put in place without impinging unduly on the rights of those who wish to avail themselves of selected genetic modification techniques. Second, … a blanket ban on applications of genetic modification would be a blunt instrument when a genetically modified form of Crop A might be quite compatible with a non-genetically modified form of Crop B.*

57 The further obvious problem is how to protect the borders between a zone or region that is GMO free, with one where GMO technology could be used if properly managed. There is a potential risk that GM crops could be transported across the boundary, and enter the Northland District. If this is a legitimate concern, there is little reason to have a GM free zone, as it would be easily undermined. If it is not a legitimate concern then GM free zones are not necessary, as the material can be properly contained.

Duplication leading to increased costs

58 Regulation under the RMA as well as the HSNO Act will lead to increased costs, which will not result in an improved system. The most obvious of these costs is the unnecessary compliance costs on applicants, and process costs on council (which we anticipate would also be passed on to the applicant).

59 It is clear from this hearing that GM technology is a controversial topic. The risk associated with allowing a further discussion of an application in the RMA context is that a decision made by the Council could be appealed, or called in as a matter of national significance under the RMA. This is a clear duplication of the HSNO Act process, and would lead to increased costs for Council, central government and the applicant.

60 As a result the proposed provisions would not meet the tests for efficiency and effectiveness as set out in section 32.

61 The Section 42A report addresses the question of duplication and states:

> *The decision of the Environment Court provides a very clear exposition of how the HSNO and RMA complement each other, rather than duplicate functions. The Court found that HSNO and the RMA have different purposes and roles in relation to GMOs. HSNO's purpose and its 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 HSNO 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.*

62 There are a number of points that are relevant when considering this aspect of the Environment Court decision:

62.1 This decision is currently subject to appeal and therefore caution must be exercised when relying on this case.

62.2 Although there is some reference to HSNO having no further role once a new organism is released – in reality this is unlikely to be the case as any HSNO

approval for release would almost certainly be subject to on-going conditions such as the requirement for setback distances or limitations regarding the use of GMOs.

62.3 In considering why controls over GMOs may be justified the Environment Court refers to *Bleakley v Environmental Risk Management Authority.* In that case the High Court referred to the fact that if spray milk on pastures were to raise a concern that heritable material might escape that would be a concern for the authority, but that if after authority action there was no risk of escape of heritable material but there remained a risk of another environmental character e.g. destruction of aquatic life in streams – that would be a concern to be dealt with under the RMA.

62.4 However in this case the plan changes are not addressing a risk of another character (i.e. a risk of the type that would not have been addressed under HSNO). Rather the plan provisions are aimed at addressing the same risks that the HSNO process is set up to address. Therefore, in the case of these plan changes, there is no justification for separate controls under the RMA and the only outcome will be duplication in the processes.

62.5 The overlap between the legislation has been recognized in case law. As recognised by the Court in both the *Federated Farmers* case and *NZ Forest Research Institute Limited v The Bay of Plenty Regional Council*[11] sections 4, 5 and 6 of the HSNO Act strongly echo their counterparts in the RMA.

ANALYSIS OF SECTION 32 AND SECTION 42A REPORTS

63 A number of issues arising out of the section 32 and 42A reports have been addressed above. We have addressed further issues below.

Matter of bias within the s 32 Report

64 Pastoral Genomics considers that the section 32 report that was undertaken by the Council is fundamentally flawed, as it is based on the work of Dr Kerry Grundy, who is a signatory to the 2013 ENSSER statement that there is no scientific consensus on GMO safety[12]. Furthermore, Professor Jack Heinemann is the independent scientific expert witness for the Council who is also a signatory to the ENSSER statement.

[11] [2013] NZEnvC 298
[12] European Network of Scientists for Social and Environmental Responsibility. Statement: *No scientific consensus on GMO safety*, released 21 October 2013

65 Section 32 requires an examination to take into account the benefits and costs of policies, rules, or other methods in the proposed Plan. The section 32 report offers examples of the risks of GMOs, and the benefits of the district remaining GE-free. However, there is no substantial consideration of the benefits GMOs could produce for the region, nor the costs to New Zealand of preventing the introduction of advances GMOs have had in other parts of the world.

66 It is considered that this skewed view presented in the section 32 report is due to the personal philosophies of Professor Heinemann and Dr Grundy and is shown by the selective reports each expert chooses to reference in their respective evidence. These reports present a one-sided view. The s 32 report and Professor Heinemann's evidence exclude reference to the many other recent reports of good authority. Further, as explained in the evidence of Dr Dunbier, Professor Heinemann has also made a number of public statements that show his approach to GM risk and regulation is not strictly based on available science.

67 It is submitted that both of these experts should have clarified the potential conflict between their personal beliefs, and the requirement to present a thorough analysis of **all** the relevant issues to the Panel. Both experts purported to give evidence in accord with the expert evidence Code of Conduct, it is submitted that this has not been complied with.

68 It is accepted that this does not exclude the evidence of these two experts from being presented. However, in accordance with *M (CA438/10) v R*[13] the Panel should determine what weight the expert evidence should be given.

69 It is also important to note here that the evidence of others, in particular Dr Small is heavily reliant on the conclusions reached by Professor Heinemann. However, the section 32 analysis is largely based on a draft section 32 report prepared by Dr Grundy, and so issues of bias are also of concern there.

The Panel's options in dealing with an imbalanced s 32 report

70 The RMA is clear that the s 32 report must explore the advantages and disadvantages of a proposal.

71 From the public's perspective, the s 32 report's role is to **inform** the public and decision makers of the issues. It is not in the nature of an FNDC Council "manifesto".

[13] [2011] NZCA 84

72 Where submissions are made on an unsupported and unbalanced s 32 report, the Council can inevitably face challenges outside this process for judicial review. That is the likely outcome from these proceedings on the basis:

72.1 That your s 32 report draws scientifically on material from an author with a stated position in opposition to the matter at hand;

72.2 It does not address the statutory requirements;

72.3 It does not adequately address benefits; and

73 In view of the above, on the procedural issue, the best option is for the Panel to reject the proposed plan changes and evaluate whether it should start the process afresh.

Reasons Given in s 32 Report for Introduction of GMO provisions

74 As established above, the s 32 Report does not give a balanced view of the issues surrounding GMOs. However, Pastoral Genomics consider that every issue contained within the report can be countered through the evidence of Dr Dunbier and others appearing before the Panel, as well as by these legal submissions.

75 The section 32 report sets out reasoning for the inclusion of the proposed GMO provisions within the Plan. This includes the following justifications:

75.1 Lack of scientific certainty and/or agreement over many issues relating to GMOs, including the potential of adverse effects of GMOs on natural resources and ecosystems;

75.2 An assertion that local/regional marketing advantages need to be protected, by reducing the risk of market rejection, as well as negative effects on marketing, branding and tourism opportunities;

75.3 An assertion that legislation does not have an ability to make the applicant financially accountable for any damages arising in the event of an escape of GMO material; and

75.4 It is stated that the precautionary approach has been adopted as the District's response to the concerns that the HSNO Act does not embrace the precautionary principle.

76 However, these reasons are fundamentally flawed for the reasons summarised below.

Scientific certainty

77 Dr Dunbier in his evidence sets out a scientific critique of the proposed provisions, and his evidence explains why the scientific basis of the s 32 report is fundamentally flawed.

78 We do not propose to go into the scientific arguments in these submissions, that is clearly a matter best left to the experts. However, it is appropriate to refer the Panel to the section above, where the issue of what weight should be given to the evidence proffered by the Council.

Relevance of "GE Free Status" and impact on marketing

79 Attached to these submissions, as **Annexure 1**, is a memorandum from Insight Economics which was commissioned by the Hastings District Council in a similar hearing last year. This memorandum was to consider the benefits that the Hastings District may derive from either maintaining a GM free status, or alternatively, embracing GMOs when they had been through the HSNO Act process. It is submitted that similar outcomes as concluded by Fraser Colegrave in the memorandum would be applicable within the Northland region.

80 This report considers that there is no real economic benefit to be derived from having a 'region-wide' GM-free status, as any premia (established to be minimal) will not be assessed on a region wide basis. Rather, in the same way that something can be certified organic with a traditional farm next door, the memo establishes that certified GM-free produce could still achieve a premia even if it was neighbouring a GM farm.

81 The memo then goes on to establish the economic benefits that the Hastings District would exclude itself from, if it chooses to pursue a GM-free status. It is submitted these same benefits apply to the Northland region. Relevantly, benefits identified by the memo include:

81.1 Reduced chemical pesticide use;

81.2 Increased crop yields;

81.3 Increased farmer profits;

81.4 More effective use of land; and

81.5 Nutritionally enhanced options for consumers.

Liability provisions

82 The section 32 report refers to the lack of liability provisions from HSNO Act. For example, the s 32 report states in section 4.3.2:

> While the HSNO Act includes a range of assessment criteria that the EPA is to consider for field tests (i.e., taking into account adverse effects on human health and safety and the environment) and controls required for all field tests, there is no requirement to address liability issues.

83 However, the HSNO Act contains punitive provisions for persons breaching the Act – and importantly issues relating to damages associated with a breach as outlined above at paragraph 49. Therefore this reasoning in the section 32 report is flawed. The EPA is also able to provide for conditions of approval in this regard.

Precautionary approach

84 The HSNO Act addresses the precautionary approach directly in section 7:

> 7. Precautionary approach
>
> All persons exercising functions, powers and duties under this Act, including but not limited to, functions, powers, and duties under sections 28A, 29, 32, 38, 45, and 48 of this Act, shall take into account the need for caution in managing adverse effects where there is scientific and technical uncertainty about those effects.

85 Therefore the precautionary approach is mandatory under HSNO in the circumstances described in s 7 and the suggestion that this is a gap in HSNO is simply incorrect.

86 It is relevant to note that this does not require the prevention of adverse effects, but rather the exercise of caution in managing any known or possible adverse effects in situations of scientific and technical uncertainty.[14] The precautionary approach is addressed further in the evidence of Dr Dunbier.

87 Therefore, for the reasons set out above, the justification for the proposed provisions set out in the section 32 report is fundamentally flawed.

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[14] *Mothers Against Genetic Engineering Inc v Minister for the Environment* HC Auckland CIV 2003-404-673, 7 July 2003.

The Existing Environment

88 In assessing the adoption of an overall District Plan, decision-makers are determining what a better outcome is for Northland. "Better" is a comparative, and accordingly an understanding of the existing environment, forms the backdrop for assessment – for any, or a range of, options. Consideration of the existing environment includes a consideration of the type of plant breeding techniques that exist at present (and the controls that exist over those techniques).

89 Dr Dunbier in his evidence compares the risks of different plant breeding methodologies. Dr Dunbier explains that there is no reason to expect risks associated with GM techniques to be either more frequent or more severe than from the use of conventional techniques and the evidence available indicates they are likely to be less. From an RMA perspective, some of these other non-GM techniques are relatively uncontrolled and it is the producer that sets these controls.

90 In comparison, GM techniques are already subject to a very stringent level of control under the HSNO Act.

91 The plan presupposes that the innovative current non GM technologies are preferable – and that the influences of GM pose risks over-arching the current risk of production. However for the reasons set out above this is flawed and it is illogical to subject GM techniques to greater scrutiny by local authorities, particularly given the level of control already provided by the HSNO Act.

OTHER LEGAL ISSUES ARISING FROM PLAN PROVISIONS

Bonds

92 Clause 19.6.2.2 sets out bond requirements.

93 The Law Commission Report in 2002 recognised practical difficulties with setting the amount of any bond without knowing the likelihood or scale of potential damages.

94 Pastoral Genomics is concerned that the Council propose to contemplate the addition of a bond, to be used for a 'clean-up' in the case of an escape. The Council has made no written evidence available to the submitters in relation to the quantum of this proposed bond. The Council has not considered the likely cost of such an escape, if one did indeed occur. All the considerations included at are vague, and include no specifics as to how a

bond figure would be determined. Therefore, to try and impose a rule requiring a bond, with no guidance as to what this bond should be set at, is unrealistic.

95 Further, as set out above, HSNO contains comprehensive liability provisions, including a requirement to pay damages in the event that the Act is breached, and therefore the imposition of a bond is unjustified.

96 It is considered that any condition which requires a bond so a person can be liable even when they are acting in accordance with the HSNO Act and the conditions of their permit, would be unreasonable and would be open to challenge.

97 It also presents difficulties as to when the bond should be returned. When a GMO is 'fully released' in accordance with HSNO Act rules, it is released permanently, not for a specified period of time. Therefore, to require a bond would either necessitate the establishment of a timeframe from which the GMO is deemed to be 'safe', or alternatively, a bond which is essentially held in perpetuity. This is clearly impractical, as it no longer acts as a bond, but rather a payment to the Council.

98 We note that in the Australian case of *Marsh v Baxter*[15] the Court considered a claim in damages of $85,000 by Mr and Mrs Marsh against their neighbour Mr Baxter. The Marshes were approved growers of organic produce and Mr Baxter's crops included GM canola. The Court rejected claims in nuisance and negligence arising out of an incident where some GM canola plants were blown onto the Marsh property. The Court determined that Mr Baxter was not to be held responsible merely for growing a lawful GM crop and choosing to adopt a harvest methodology which was entirely orthodox in its implementation.

> This has recently been upheld by the Supreme Court of Western Australia in the Court of Appeal (WA)[16]. *[785] The fact that the appellants chose, for their own, presumably commercial, reasons, to conduct their farming operations subject to contractual conditions of that kind, did not mean that the lawful use by neighbouring landowners of their own land in a way which affected the appellants' ability to comply with those conditions, constituted a wrongful interference with the appellants' use or enjoyment of their land. That is, the appellants could not, by putting their land to an abnormally sensitive use, thereby 'unilaterally enlarge their own rights' and impose limitations on the operations of their neighbours to an extent greater than would otherwise be the case.*

[15] [2014] WASC 187
[16] *Marsh v Baxter* [2015] WASCA 169 (3 September 2015).

> *[786] The appellants were, of course, entitled to enter into arrangements which had the effect that their land was being put to an abnormally sensitive use, but their neighbours did not then fall under an obligation to limit their farming activities on their own land so as not to interfere with that use of the appellants' land… Neither enabled the appellants to enlarge their rights at the expense of their neighbours.*

99 This case is therefore an example of a situation where a Court of similar jurisdiction has found it unreasonable to attribute liability to the grower of GM crops where a person is acting lawfully in growing a GM crop.

Activity Status

100 We are unsure whether the range of options considered by the Council includes the legal opinion of Asher Davidson dated 8 May 2015 (**Davidson opinion**), which was commissioned by the Hastings District Council before the hearing of the proposed GMO provisions in that region. This is enclosed with these submissions as **Annexure 2.** The Davidson opinion proposes several suggestions relating to the activity status of GMOs in a district or regional Plan, and Pastoral Genomics consider that several of his suggestions are workable and avoid the 'double-regulation' that is apparent in the current proposal.

101 The Davidson opinion establishes at paragraph 5 that for this proposed Plan to stay silent on the issue of GMOs risks applications being dealt with in a planning vacuum at a later date if they do not fall within existing definitions. Therefore, the Davidson opinion considers it important for the proposed Plan to address the issue of GMOs in some way, rather than striking these sections out as was proposed in the submission and further submission of Pastoral Genomics. Pastoral Genomics do not agree with this conclusion, however it is submitted that if the Panel determine that it is appropriate for the Plan to include reference to GMOs, then the suggestions included in the Davidson opinion need to be considered.

Activity Status for Field Trials

102 The current proposal has field trials of GMOs as a discretionary activity. Pastoral Genomics consider that this proposed activity status is too strict, and will be problematic for the Council if it remains as such. As has been extensively explored above the HSNO Act already requires the consideration of many factors that are also relevant to resource consent applications.

103 Further, when an application is made under the HSNO Act, the public (as well as Regional and District Councils) have the opportunity to make submissions. Therefore, to

have the activity as a discretionary status opens up all of these matters to be considered again, even where the specialist body of the EPA has made a determination, and interested parties have had the opportunity to have their say.

104 This essentially equates to the applicant having to redo the entire application, but this time to a consent authority that lacks the necessary scientific expertise to make an informed decision.

105 Therefore, Pastoral Genomics consider, given the evidence the Panel has received in relation to the stringency of the HSNO Act process, that the field testing and release of GMOs should be a permitted activity where HSNO approval has been obtained.

106 It is considered by Pastoral Genomics that this permitted activity status is the only solution, as there is no way to justify a bond in relation to field-testing. Any field test is still completely within the controls of the HSNO Act legislation, and so the strict liability rules and related penalties explained above are applicable. Therefore, to require a bond cannot be seen to be efficient or effective, as liability under the HSNO Act will remain. As this is the only issue the Council proposes to control, this should be the end of the matter.

107 However, if the Panel considers that the Council is able to take a bond (despite paragraphs **Error! Reference source not found.** to 99 above), a more appropriate position for the Council to take would be the third option proposed in the Davidson opinion at paragraph 73. There, it is proposed that the activity status of field trials and release should be controlled or restricted discretionary. It is considered that although this suggestion was not included in any submission, it is within the scope of the Panel to make this decision.

108 As established above, there appears to be little point to require the consent authority to reconsider all the factors already determined by the EPA over the course of getting approval under the HSNO Act. Controlled activity status, with discretion limited to a bond, gives certainty to community for a bond, whilst also allowing for research, progress and innovation to occur within the Northland district.

109 If the Panel still consider there is justification under section 32 to include a control beyond that set out in the HSNO Act in relation to damages, a restricted discretionary status would be much more appropriate than discretionary. The proposal explicitly sets out matters for Council's consideration already, so to leave the issue open as a fully discretionary activity would be to re-cover everything that the EPA is already responsible for.

Prohibited Activity Status for Release

110 The proposed activity status table recommends making the release of GMOs a prohibited activity.

111 The Court of Appeal case of *Coromandel Watchdog of Hauraki Inc v Chief Executive of the Ministry of Economic Development* [2008] 1 NZLR 562 involved a decision by the Council to make mining a prohibited activity in a number of zones covering a substantial portion of the Coromandel Peninsula. The Court stated at paragraph [28]:

> "The important point for present purposes is that the exercise required by s 32, when applied to the allocation of activity statuses in terms of s 77B, requires a council to focus on what is "the most appropriate" status for achieving the objectives of the district plan, which in turn, must be the most appropriate way of achieving the purpose of sustainable management".

112 The Court went on to state at paragraph [31]:

> "In addition to the cost/benefit analysis required by s32, there are a number of other requirements which must be met by a local authority in preparing its district plan. When determining which of the activity types referred to in s 77B should be applied to a particular activity, the local authority must have regard not only to the cost/benefit analysis undertaken pursuant to s 32, but also to its functions under s 31, the purpose and principles set out in Part 2 of the Act, particularly the sustainable management purpose described in s 5, the matters which it is required to consider under s 74, and in relation to rules, the actual or potential effect on the environment of activities including, in particular, any adverse effects (s 76(3))".

113 In *Thacker v Christchurch CC* Env C C026/09, although the Environment Court adopted the test as set out in *Coromandel Watchdog*, the Court emphasised that:[17]

> "The imposition of prohibited activity status on any activity or activities is the most draconian form of control available under the RMA. A prohibited activity is not only one for which a resource consent must not be granted by a consent authority, but a proponent of such an activity may not even make an application for it. Although not specifically stated by any of the parties to these proceedings there was an implicit acceptance that prohibited activity status was not one which should be imposed lightly and without detailed consideration".

[17] Paragraph [42].

114 The Court referred to the test formulated by the Court of Appeal in *Coromandel Watchdog* as being whether or not the allocation of that status is "*the most appropriate of the options available."*

115 The Court at paragraphs [49] – [50] held that the matters contained in section 32(3) and (4) are mandatory and that in advancing the case for imposition of prohibition the Council failed to give any detailed consideration to the comparative evaluation required.

116 The Court referred to the fact that the costs imposed by a prohibition on persons carrying out excavation and filling associated with agriculture and horticultural activities in the identified areas was something which must properly be taken into account in any evaluation pursuant to section 32. However the Regional Council appeared not to have considered those matters until the issue was raised during the hearing. The Court held that the Regional Council had not provided any substantive evidential basis which would enable the Court to adequately assess the costs and benefits of imposing prohibitions as sought by it. The Court declined to impose the prohibited activity status.

117 Prohibited activity status means that an application cannot be made or granted, as the adverse effects of the activity are deemed to be unable to be avoided, remedied or mitigated.

118 Therefore, to put the release of GMOs into the category of prohibited is essentially to put in place a moratorium for the duration of this Plan. Essentially, this will have the effect of banning the release of GMOs within the confines of the Northland District, even if such a release has been through the rigorous HSNO Act process and is permitted elsewhere in the country.

119 There are several issues with this 'moratorium' approach:

119.1 Firstly, there is case law[18] to suggest that the effective banning of an activity by a District Council that is made lawful by statute is not permitted. This arose in the context of the Prostitution Reform Act 2003, where the Christchurch City Council proposed a by-law that would effectively prohibit prostitution outside of the city centre, despite the Act expressly permitting the activity. The Court found that such a prohibition was not lawful.

119.2 It is contended that the same reasoning as the above case is applicable here. When a GMO is cleared for release under the HSNO Act, it becomes a lawful

[18] *Willowford Family Trust v Christchurch City Council* CIV-2004-409-002299, Christchurch. 29 July 2005.

activity. The *Federated Farmers* case established there was jurisdiction for the RMA to apply, however this jurisdiction does not extend so far as to prohibit an activity.

119.3 A second issue is the matter of keeping a GMO released in compliance with the HSNO Act out of the Northland District. The Insight Economics memorandum also addresses this issue – the prohibited status is only going to be effective if every other region within the North Island also adopts a similar stance. This is obviously outside of the Council's control. The further related issue arises that if GM attributes do make their way into the Northland District, this is not going to be immediately noticeable. We are not dealing here with purple ryegrass, but rather ryegrass that performs better in a drought, for example. Unless rigorous testing is undertaken, at a cost to the community, GM attributes may be present in the Northland District without anyone knowing.

119.4 The s 42A report states that should field trials or new research demonstrate that particular GMOs are safe and significantly beneficial, the private plan change process is available to change the GMO provisions.

119.5 However, an application under the HSNO Act process already incurs a significant cost. To add this further requirement of initiating a private plan change, a burden to fall solely on the first producer to get a product certified for release under the HSNO Act, could be prohibitive.

119.6 Finally, the imposition of a prohibited activity status undermines the proposed discretionary status that the Council have suggested for field trials. It seems counter-intuitive to allow field trials, establish them to the point that they are ready to be released for the benefit of the community, and then never allow that release to occur.

120 In this case it has not been shown that prohibition is the most appropriate status, and the s 32 report relied on is fundamentally flawed for the reasons set out above. As was the case in *Thacker,* the Council has failed to provide a proper cost/benefit analysis of the cost of imposing prohibition.

121 Therefore, it becomes necessary to consider what activity status should be imposed upon the release of a GMO. As established above, the prohibited status can be ruled out.

122 For this same reason, as well as what was outlined at in relation to field testing, neither a discretionary nor a non-complying activity status is justifiable under section 32, as it is

neither effective nor efficient to require the entire EPA process to be redone by local government.

123 So, it becomes clear that the options open to the Panel in relation to a release are the same as has already been explained in depth regarding field testing. Unless some justification for a bond beyond what is already provided for in the HSNO Act can be established, and that this bond can be limited in time and established at a reasonable cost, the activity must be a permitted one. As the Council has not provided any evidence on the matter of when a bond may be required, and how much it may be for, they are in no position to require the Panel to make such a decision.

124 It is submitted that a permitted activity status is the most appropriate for both the field testing and release of GMOs. It is again reiterated that this is only relevant if the Panel determine that they wish to utilise the jurisdiction that was established in the *Federated Farmers* case.

125 The section 42A report refers to the *Coromandel Watchdog* case stating that one of the circumstances deemed appropriate by the Court for the use of prohibited activity status was when a planning authority has insufficient information about an activity and wishes to take a precautionary approach, and that another circumstance deemed appropriate is where it is necessary to allow an expression of social or cultural outcomes or expectations. In relation to these two circumstances mentioned we comment as follows:

125.1 It is not the case that this is an area where there is insufficient information. The evidence of Dr Dunbier explains that there has been a significant accumulation of molecular evidence on genome structure and function which has markedly improved understanding of risk, as has the extent of global commercial experience. The evidence of Dr Dunbier addresses the evidence of Professor Heinemann on this issue. In addition, it is relevant to consider the fact that the HSNO Act already incorporates a precautionary approach.

125.2 It is necessary to consider this justification in light of the HSNO controls that already exist. For example HSNO already requires consideration of social and cultural considerations, and the process includes public notification and public hearings. Further the understanding in the section 32 report of social expectations/attitudes is informed by survey results which for the reasons outlined by Dr Dunbier, are flawed.

Not a "no risk" statute

126 Section 4.4 of the section 32 report states that the objectives "ensure that unacceptable risks to the community from the outdoor release of GMOs are avoided".

127 Further, Policy 19.4.3 states: "require outdoor field trialling of GMOs to avoid, as far as can reasonably be achieved, risk to the environment from the use, storage, cultivation, harvesting, processing or transportation of a GMO".

128 It is a fundamental principle that the RMA is not a "no risk" statute. The measure of risk and its assessment and the acceptable degree of risk avoidance are matters of fact in a particular case: *Land Air Water Association v Waikato RC* EnvC A110/01. A requirement that the community be free of any risks is therefore contrary to this principle.

129 Social concerns about risks associated with the release or field trialling of GMOs are already addressed by the EPA under the HSNO Act, which involves a public hearing process and the opportunity for community consultation. It is important that the assessment of risk is focused not on the risks of GMOs themselves (as this was extensively considered as part of the process of the HSNO Act). Rather the assessment should consider the extent to which any risks are not dealt with under HSNO, and as set out above risk is comprehensively dealt with by that Act.

130 On this basis no extra "precaution" is achieved and nor is it required other than through a perceived fear. Perceptions or fears are not legitimate resource management concerns, unless established as "real" by evidence of probative value: *Contact Energy v Waikato Regional Council* (2000) 6 ELRNZ 1.

131 A further example is *Beadle and Others v Minister of Corrections* A74/2002 which relates to the Northland Prison where the Court stated (at paragraph 274):

> In this jurisdiction it is well established that claims about people's attitudes and fears, however genuinely held, have to be assessed objectively, and if unsubstantiated by factors properly cognisable under the Act, should not influence the decision. If it is found on probative evidence that there would be no adverse actual or potential effect on the environment of allowing the activity, then the fact that some people remain fearful and unconvinced by the weight of evidence is not a relevant matter to be taken into account. Fears can only be given weight if they are reasonably based on real risk.

132 It is submitted that the section 32 and 42A reports by Council, and the evidence on behalf of Council, confuse the concepts of hazard and risk. That is - the focus in those reports is on hazards associated with GMOs rather than the risk (which must include a consideration of the likelihood of that risk occurring). The evidence of Dr Dunbier demonstrates the very low risk that exists, particularly in light of the stringent HSNO controls that are in place.

Regional Policy Statement

133 Section 74 of the Resource Management Act requires a district council to have regard to any proposed Regional Policy Statement (RPS).

134 The proposed RPS Policy 6.1.2 directed Councils to take a precautionary approach towards the effects of introducing genetically modified organisms. The RPS goes on to state in relation to Methods:

> *The regional and district councils should apply Policy 6.1..2 when reviewing their plans or considering options for plan changes and assessing resource consent applications, but should not include plan provisions or resource consent conditions that attempt to address liability for harm.*
>
> ***Explanation**: Method 6.1.5 implements Policy 6.1.2. The method discourages councils from attempting to change the liability regime for potential harm from genetically modified plant organisms because there is no strong basis for regional or local liability.*

135 Contrary to the above, the plan provisions are intended to address liability. For example the section 32 report states that a benefit of a discretionary activity status of field trials is as follows:[19]

> *Assessment criteria under the HSNO Act does not include liability provisions, therefore the discretionary activity status enables councils to address liability through general development and performance standards.*

136 In introducing the proposed provisions the Council has failed to have regard to the direction in the proposed RPS set out above.

[19] Page 41.

REVISITING THE SCENARIO AT THE COMMENCEMENT OF THESE SUBMISSIONS

137 There are many activities associated with land use which attract strong views from many sectors of the community – and risks associated with all of them; Mining, Dairying, indoor factory farming; and GMO's

138 This hearing should, it is submitted, not place one of the particular activities on a pedestal. The issue for the panel is to ensure that the effects on the environment are subject to robust controls.

139 This hearing should not be about providing a pathway to advantage for one group of growers (e.g. Organic growers) over another group of farmers who could benefit substantially from the development of a drought resistant grass species – or the need to apply less chemical sprays or fertilizers to the land. A plan process is not about "picking winners". It is about providing for a range of economic and social purposes and about managing the status of activities – where the level of risk is unknown or needs to be quantified.

140 Prohibited status, does not achieve that aim.

141 In the same context, bald statements that successive plan changes are the better outcome on each EPA approval, is a major disincentive to both the robustness of the FNDC plan, and to an applicant group, forced into that methodology. Such ad hoc methodologies for long term plan viability should be avoided.

CONCLUSION

142 For the reasons set out above the proposed provisions fail to satisfy the requirements of s 32. Although Pastoral Genomics would support the withdrawal of the plan changes, if it is considered necessary to replace them, the only option justifiable under s 32 is to allow both the field trials and release of GMOs to be permitted activities.