

Submission Form

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Submission Number Office use only 180

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Post: The Chief Executive	Bay of Plenty Regional Council PO Box 364	Whakatāne 3158
Post:		

Submitter Name: WBOPDC Partnership Folum- Tauranga Moana-Te Arawa Ki Takutai

(lml and Maple members) This is a submission on **Proposed Plan Change 13 (Air Quality) to the Regional Natural Resources Plan**

| excital/could not gain an advantage in trade competition through this submission. [Delete as required.]

- (a) Isoman not directly affected by an effect of the subject matter of the submission that adversely affects the environment; and
- (b) My submission the strate of relate to trade competition or the effects of trade competition. [Delete the entire paragraph if you could not gain an advantage in trade competition through this submission.]

The details of my submission are in the attached table.

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- l wish*iabanatanishtanb*antaand in support of my submission. *Delete as required*]
- If others make a similar submission, I will consider presenting a joint case with them at a hearing. [Delete If you would not consider presenting a joint case.]

Signature of person making submission or person authorised to sign on behalf of person making submission.] [NOTE: A signature is **not** required if you make your submission by electronic means.]

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PROPOSED Plan Change 13 (Air Quality) to the Regional Natural Resources Plan February 2018

Submission Content

Part 1. Kiwifruit Industry – Agrichemical/Substance Discharge

Part 2. Section 32 Report

Part 3. Proposed Plan specific

Part 4. The voice of Iwi, Hapū and Community

This submission has been prepared for the WBOPDC Tauranga Moana, Te Arawa ki Takutai Partnership Forum (Iwi and Hapū) members (see below) by Julie Shepherd-Pirirakau Incorporated Society Environment Manager.

Reon Tuanau (Ngai te Rangi) Tauranga Moana, Joint Chairperson

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Bob Leef (Ngati Taka)

Wiremu Matthews (Ngai Tamarāwaho)

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Riki Nelson (Ngati te Wai)

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Horace Te Moni (Ngati Rangiwewehi)

Kevin Tohiariki (Te Whānau o Tauwhao)

Hemi Paki (Ngati Tauaiti)

Manu Wihapi (Tuhourangi)

Tommy Wilson and Rawiri Kuka Chairperson (Pirirakau Incorporated Society)

Part 1. Kiwifruit Industry – Agrichemical/Substance Discharge

The Bay of Plenty is the focus of kiwifruit growing (principally Katikati, Te Puke, Tauranga and Opotiki) producing over 80% of the crop¹. Kiwifruit continues to be New Zealand's largest single horticultural export by volume and value, and again exceeded \$1 billion for exports in 2016. ²Zespri is a company owned by 2,500 current and former New Zealand kiwifruit growers and cooperatively controlled by producing growers. Zespri are a major stakeholder in the Kiwifruit Industry, they host a '³Social Responsibility Policy' which states;

"One of the ways in which we aim to support a sustainable kiwifruit industry is through its community investment work. In New Zealand, it is investing to support strong and healthy local communities, to develop a skilled and innovative industry and to promote a sustainable environment".

There should be no resistance of Industry to ensure they are fulfilling their responsibilities by making contributions to research of human and environmental risks associated with agrichemical discharges to air. There has been no research on their part for certainty, there are no risks.

The Kiwifruit industry discharges substances which are approved by the Environmental Protection Authority (EPA) at an unknown (to the public) rate. The EPA in approving substances are guided by ⁴the HSNO Act section 4;

"Purpose 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 agrichemical user (AU) is then permitted under NZS 8409:1999 Code of practice for the management of agrichemicals;

"This Code of Practice has been prepared with the aim of ensuring that where agrichemicals are handled or used, the practices followed are safe, responsible, and effective, with minimal adverse impact on human, environmental and animal health. This is consistent with the principles of sustainable management of natural and physical resources, as required by the Resource Management Act 1991 and in the regional plans prepared by Regional Councils".

To purchase and apply many of the agrichemical substances by means of an approved handlers certificate provided through a Grow Safe qualification. This is where the EPA reach ends, no monitoring, no regard for human health or environmental (flora and fauna) risks, no scientific research of effects. Many of the agrichemical substances used for Kiwifruit are known to have associated human and environmental risk (see a few examples in the table, page 3). Post the approval of these substances there is complete freedom to discharge these substances with no monitoring or consenting requirements to **discharge to air** by any means of application.

¹ http://www.hea.co.nz/2012-05-11-03-05-28/kiwifruit-trade

² https://www.zespri.eu/en/about-zespri/about-us

³ https://www.zespri.eu/en/about-zespri/social-policy

⁴ http://www.environmentguide.org.nz/activities/genetic-modification/purpose-and-principles/

Product	Human impacts	Environment Impacts
Keystrepto http://www.kvh.org.nz/vdb/document/102913	Harmful - May be harmful if swallowed, inhaled or absorbed through the skin May cause eye irritation and an allergic skin reaction KeyStrepto on the skin can cause serious dermatitis in a few persons abnormally sensitive to streptomycin May cause organ damage from repeated oral exposure at high doses	Hazard Classification: 6.1D, 6.4A, 6.5B, 6.9B, 9.1A, 9.3C ECOTOXIC – Very toxic to fish and aquatic organisms Avoid contamination of any water supply with product or empty container KeyStrepto shall not be applied onto or into water Harmful to terrestrial vertebrates
Movento 100SC https://www.cropscience.bayer.co.nz	WARNING HSNO Classifications: 6.5B, 6.8B, 9.1C. 6.5B May cause an allergic skin reaction. 6.8B Suspected of damaging fertility or the unborn child.	9.1C Harmful to aquatic life with long lasting effects.
Kasumin® 2L http://www.cdms.net/ldat/mpA19005.pdf	H360: May damage fertility or the unborn child	Hazardous to the aquatic environment – Acute Hazard category 1.

Examples of risk associated with agrichemicals

Agrichemical discharge has occurred over decades without any regulation. Public outcries have regularly occurred, relative to discharge of Hi Cane (Hydrogen cyanamide) and intensive periods of Copper based sprays (PSA controls). Public outcries are recorded by ⁵the Bay of Plenty Times in 2011, seeking independent research to determine health effects. Disturbingly, during the peak of the Hicane fears during 2009-2012, information was readily available online which confirmed Hi Cane as having carcinogenic effects and dogs were highly susceptible. This information is no longer available, they have been removed but many anecdotal collections continue to be available.

⁵ http://www.nzherald.co.nz/bay-of-plenty-times/news/article.cfm?c_id=1503343&objectid=10985710

The social effects of this practice are intensive. People stay indoors, they need to shelter animals, ensure children are not subjected to agrichemicals passing orchards, often passing unintentionally, washing must be collected from clothes lines or rewashed if left out. These are all forced social pressures which compound fear. No one should be held hostage to these fears.

In 2011 the ⁶Pirirakau Hauora in Te Puna released evidence which outlined an increase of respiratory illness during July and September (Hi Cane application season), this was discussed to have been contributed to by Winter illnesses, colds. How could this be confirmed as there is no data collected.

In August of 2014, Radio New Zealand posted an article citing Bay of Plenty Regional Council, Pollution Prevention office, John Morris;

"The Bay of Plenty Regional Council said that spraydrift from orchards affects the community's health - particularly people near orchards, such as rural posties who have complained about developing rashes".

There is acknowledgement of risk outside of the orchard. Bay of Plenty Regional Council are responsive through the Pollution Hotline if there are any complaints of agrichemical trespass. So why is there no response of Bay of Plenty Regional Council to form management including activity status and consenting of this activity? Iwi, Hapū, Communities feel they are threatened by this activity, they have regularly voiced this, and they feel isolated and frustrated to achieve sufficient change to address these concerns. No other industry is freely permitted to discharge to air.

On the 27th of August 2013, Councillor Nees posted ⁷Being Careful with Hi-Cane Spray (updated Aug 12, 2016, 5:50 PM)

"Living as we do in kiwifruit country, we all receive the benefits of the kiwifruit industry which makes a major contribution to our region. However, there has been a lot of community concern over the past few years about negative health effects of Hi-Cane spray".

The activity of discharging (known) harmful substances is currently managed by best practice applications, spray nozzle technology, wind conditions, signage, neighbour notification and a Pollution Hotline (BOPRC). Since 2009 Bay of Plenty Regional Council formed a series of collective meetings that included, Zespri, Community, New Zealand Kiwifruit Growers Incorporated, Spray watch and Pollution Prevention officers this is reflected in the s32 Report under an assessment of the spray rules at page 107 and confirmed by ⁸New Zealand Kiwifruit Growers Incorporated (NZKGI);

"An action group has been working since 2009 with representation from Zespri, NZKGI, Bay of Plenty Regional Council, community groups and other parties **to address these issues**. This has resulted in best practice education for growers and contractors, new technologies to reduce spray drift, improved neighbour notification and better communications between industry and the community"

The meetings came as a result of Hi Cane attention, while it appeared that the attention to Hicane was exhausted and industry sought to improve methods of application. There were no follow ups on the products actual effects, Community avidly supported research and safer alternatives this is evidenced also by the spray complaints, page 106. Iwi and hapū of Tauranga Moana expressed this

⁶ Tommy Wilson Hi Cane information

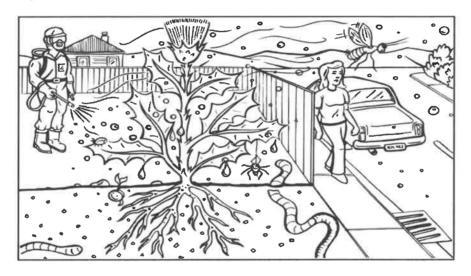
⁷ http://www.janenees.co.nz/news/beingcarefulwithhi-canespray

⁸ http://nzkgi.org.nz/wp-content/uploads/2016/12/Hi-Cane-Spraying.pdf#article

at regular Nga Kaihautu (EPA Maori National Network) hui in 2011 and 2012. It is now 2018 and these concerns must be addressed.

⁹Agrichemical Trespass (AT) is described in a Final Report to the Minister for Environment 'Agrichemical Trespass, Ministerial Advisory Committee (ATMAC);

"In the context of this report agrichemical trespass occurs when the actions or omissions of one party cause an adverse effect on the property or person of another. The trespass will occur no matter how small the effect, although the scale of the effect will impact on any penalties imposed (There are no penalties unless proven by the actions of a complaint). The meaning of trespass encompasses the common law actions of nuisance and negligence. Various pieces of legislation also control actions that might lead to trespass, e.g. the discharge of contaminants to the environment under the Resource Management Act (RMA).



Source- https://www.mfe.govt.nz/sites/default/files/agrichemical-trespass-mac-report-nov02_0.pdf

The off-target travel of an agrichemical can occur through the air, through the ground and soil, and by water. Agrichemical trespass can occur when an agrichemical travels off-target by any of these means".

¹⁰Current practices at the Port of Tauranga (POT) for application of Methyl Bromide requires containment of its application, this includes monitoring as a responsibility of the POT;

"The fumigator will, and Port of Tauranga staff or appointed contractor, may regularly monitor fumigant levels outside the monitored safety zone to ensure that the levels are not above the Workplace Exposure Standard (WES) and present no risk to port users who may enter or work in the zone".

It may be understood that the POT area is smaller and more easily managed and how can this level of control be applied to Kiwifruit orchards. Common sense will inform anyone that it cannot, so how can we effectively manage AT where the risks are not certain in a much larger area (Bay of Plenty Region)?

⁹ https://www.mfe.govt.nz/sites/default/files/agrichemical-trespass-mac-report-nov02_0.pdf

Fumigation Procedures for the Port of Tauranga

file:///C:/Users/julie/Downloads/Fumigation%20Procedures%20for%20Port%20of%20Tauranga%20Limited-Version%202%20April%2018.pdf

The level of risk uncertainty requires addressing. Bay of Plenty Regional Council are challenged to achieve management of AU, but it is ultimately responsible for the effects of discharge to air, this is clearly unfortunate as responsibility is shifted by the EPA. On that note, how do we effectively live amongst hazardous substances and ensure the health of humans and the environment are protected?

Bay of Plenty Regional Council have permitted this industry to freely discharge to air and are delegating authority to manage adverse effects on human health and the environment to AU by the currents standards of its policy AQ P8 Agrichemical spraying - Te tōrehu matū ahuwhenua;

"Agrichemical sprayers will manage adverse effects on human health and the environment by:

- (a) avoiding spray drift beyond the boundary of the subject property and into water bodies where possible
- (b) mitigating effects particularly on sensitive activities where avoidance of spray drift is not possible
- (c) using a risk management approach for agrichemical spraying activities with a higher risk of becoming noxious or dangerous, offensive or objectionable.

The delegation contravenes the authority of Bay of Plenty Regional Council and air discharge management. In effect Bay of Plenty Regional Council have not, at the least, exercised a precautionary principle. When an activity raises threat to human health or the environment, precautionary measures must be taken, even if some cause and effects relationships are not fully established scientifically.

We urge Bay of Plenty Regional Council, the EPA, Industry, Public health officials and scientists to adopt an innovative approach "one that takes sciences uncertainty, not as a sign that there is no danger but as a sign that danger might well exist". To exercise an ethic of caution or prudence in evaluating products, **discharge** and its effects, even with low levels of toxicity, of accumulative harm to populations in the future.

We seek industry burdens of proof to inform a compelling rationale in providing evidence of no risk to human health and the environment. We plead with the Bay of Plenty Regional Council to develop prudent public policy to provide a margin of safety regarding potential health and environment risks. "¹¹We do no less in designing bridges and buildings, we must surely do no less when the health of humans and the environment is at risk".

We accept that the Kiwifruit industry is a legitimate economic contribution to the regional and national Gross Domestic Product (GDP), as such it effects on others requires monitoring. We do not seek to undermine this economy, we seek to ensure that the application of agrichemical discharges is reinforced by scientific evidence to provide certainty of risk free human health and a sustainable environment.

This submission appeals to the Bay of Plenty Regional Council to form an Agrichemical Strategy and Implementation Plan which includes monitoring and research in collaboration with Industry to capture data with appropriate measures to form;

• Independent Research

¹¹ Markowitz and Rosner 2002

- Actual evidence of spray drift
- Record of contaminants in the atmosphere and boundary breaches
- Formulate a program of alternative safer products, should evidence require this.
- Monitoring stations that are central to the activity zones of discharge and include a
 consenting regime as suggested by the packaged Option 2 and 4 of this proposed plan
 change which would provide for mobile data gathering (see Package of Option 2 and 4 of
 this submission, page 5)
- Monitoring stations at schools and public assembly points within the Region (it is not
 plausible to position signage, give notice and re-entry in 5 days of these areas).
- More stringent regulation, consenting activity status
- Penalties imposed.

To do nothing is no longer acceptable, decision makers are required to listen to their constituents regardless if the decisions are difficult and there must not be a cost barrier when determining health and environment risks.

Developing an Agrichemical Strategy and	We recommend that BOPRC develop an
Implementation Plan which includes monitoring	Agrichemical Strategy and Implementation
and research.	Plan. We suggest \$150,000 to develop the
	strategy plus a dedicated FTE to support Option
	2 and 4 package as outlined in this submission

Part 2 - Section 32 Report

7.6 Topic 3 - Agrichemical spraying

"12 The Resource Legislation Amendment Act 2017 removed the control of hazardous substances as an explicit function of councils. This means councils no longer have an explicit obligation to regulate hazardous substances in RMA plans, or policy statements. Consequential changes have also been made to the HSNO Act and the HSW Act considering this change.

The intent of this change is to remove the perception that councils must always place controls on hazardous substances under the RMA and to ensure councils only place additional controls on hazardous substances if they are necessary to control effects under the RMA that are not covered by the HSNO or HSW Acts. The Bay of Plenty Regional Council is expressly responsible for the management of air discharge under the Proposed Plan Change 13 (Air Quality) to the Regional Natural Resources Plan (incorporating Consequential Changes resulting from Proposed Plan Change 13 (Air Quality) to the Operative Bay of Plenty Regional Natural Resources Plan), RMA and the Air Quality National Environment Standard.

The Bay of Plenty Regional Council has no monitoring information on agrichemical emissions¹³.

¹² https://www.boprc.govt.nz/media/716329/l-section-32-evaluation-report-plan-change-13-final-pdf-27-february-2018.pdf

¹³ In 2015 the Ministry for the Environment published Home heating emission inventory and other sources evaluation (Environment, 2015). This document provided no estimates of air emissions from agrichemicals, although

referred to a 1997 report by Opus which noted the potential importance of agrichemicals as a source of air pollutions, recording that 'EBOP found there was no simple way of calculating the emissions from fertiliser application and information on pesticide use as not able to be obtained from the suppliers or users of these

This submission supports a package of Option 2 and Option 4

Option 4 includes a range of regulations in addition to the Agrichemical Standard and more stringent than the current rules (Option 1) or the Plan Change (Option 2). These regulations could be introduced either individually or as a package to achieve AQ O3. The effectiveness of each regulation 116 Plan Change 13 (Air Quality) to the Regional Natural Resources Plan in achieving AQ O3 is discussed below.

More stringent notification and signage requirements – such as increasing the distance proximity for notification may reduce potential adverse effects production and on human health in cases where spray drift is an issue.

Spray Risk Management Plans submitted to Council – Allows for Council to assess adequacy of each plan, ensuring that key matters are addressed by sprayers. Require certification for agrichemical users – Certification is according to the Agrichemical Standard. Appropriate certification is still required for some users under the HSNO Act, but certification does not make the rule any more effective than Option 2.

Notify Council before carrying out spray operations – Council would be aware of where spraying was to occur prior to the event and provide for effective monitoring of boundary breaches and its effects.

Assists with identifying the source if complaints are received, but this requirement would not be effective at reducing harmful effects (because complaints are generally after the event) if harmful effects were truly known there would be no requirement for complaints as action would be initiated to avoid, remedy or mitigate the effects.

Require resource consents — would allow consideration of each situation and for specialised conditions which would be more effective management of discharges. Most of these conditions would be potentially more effective, either on their own or as a package, than Options 1 or 2, but would require a high level of council resourcing (additional staffing). That requirement, plus the need for buy-in from the sector, would make Option 4 ineffective. Costs should be shared to reach evidence by users and Bay of Plenty Regional Council, this must not be seen as a barrier when each body authorise discharge through actions and policy.

7.6.5 Risk of acting or not acting

Council must assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions (s32(2)(c)). The agrichemical issue is considered important to the affected community, who through complaints express concerns about inadvertent contact with agricultural chemicals. The risk of not acting is to add to the concerns of Community.

RPS Policy IR 1B requires the use of a precautionary approach where there is insufficient information. This approach is used by requiring agrichemical users to avoid spray drift, and remedy or mitigate if avoidance is not possible. The rule includes notification and signage requirements for agrichemical spraying, particularly when using high risk methods.

Part 3. Proposed Plan specific

Section	Oppose or Support	Proposed	Amended Recommendation
AQ O3 Local air		Manage discharges of	Support on the balance of
quality — Te pai		contaminants to air	this submission.
o te hau o te		according to their	
rohe		adverse effects on	
		human health, cultural	
		values, amenity values	
		and the environment.	
AQ P2	Oppose	Hazardous substances	If unable to mitigate activity
		— Ngā matū mōrearea	shall be non-complying.
		Avoid discharges of	
		hazardous substances to	
		air and where avoidance	
		is not	
		possible, remedy or	
		mitigate the discharge	
		using the best	
		practicable option.	
AQ P3 (e)	Support	(e) minimise the	Include evidence in
Management of		discharge of	consideration of Part 1 of
discharges — Te		contaminants into areas	this submission
whakahaere i		beyond the boundary of	
ngā tukunga		the subject property	
		where it may cause	
		adverse effects on	
		human health,	
		cultural values, amenity	
		values, or the	
		environment.	
40.0444		(-) The effect of the	
AQ P4 Matters	Support	(e) The effect of the	
to consider —		discharge on human	
Ngā take hei		health, cultural values,	
whiriwhiri		amenity values,	
		the environment, and	
		regionally significant infrastructure.	
40 D0	Onnoco	(f) Cumulative effects	BOPRC are delegating
AQ P8	Oppose	Agrichemical sprayers will manage adverse	authority, contravenes
Agrichemical		effects on human health	discharge management.
spraying — Te tōrehu matū		and the	What compliance measures
ahuwhenua		environment by:	are in place considering Part
anuwnenud		environment by.	1 of this submission.
AQ R1 General	Oppose	Any discharge of	The rules do not manage
activities –	Ohhose	contaminants into air	effects. The effects of
			discharge of contaminants
Darmittad			
Permitted		which is not subject to any other rule in this	of the Kiwifruit industry are

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		excluding the discharge of dust to air associated with a plantation forestry activity, is a permitted activity provided the following conditions are complied with:	research is required.
AQ R15 Agrichemical spraying – Permitted — Tōrehu matūahuwhenua – E whakaaehia ana	Oppose		The rules permit the free discharge of contaminants, suited for industry. The rules apply only to application. The effects require research to determine activity status and rules.
AQ R19 Intensive farming — Controlled — Ngā mahi ahuwhenua — E whakahaerehia ana	Oppose	The discharge of contaminants into air from a permanent, intensive farming operation established prior to 1 January 2001, is a non-notified, controlled activity for which applications will be considered without the need to obtain the written approval of affected persons.	Seek activity status change to limited notified, discretionary activity for which applications will be considered with the need to obtain the written approval of affected persons. Industry should no longer exceed rights of others under this proposed plan
AQ R20 Fumigation for quarantine application or pre-shipment application — Discretionary or Non-complying — Auahina ki te paitini mō te tono taratahi, tono utanga-tōmua rānei — Ka whiriwhirihia, Tautuku-kore rānei	Support	•	Seek the phasing out of methyl bromide
AQ R21 Specific activities – Discretionary— Ngā mahinga tauwhāiti – Ka	Statement	(a) Agrichemical manufacture	Agrichemical manufacture has an activity status, yet agrichemical discharge does not

whiriwhirihia The discharge of contaminants into air from any of the following activities is a discretionary activity:	
Purpose of the Plan P5	There is no provision for human health, contravenes AQ rules. Seek to ensure the purpose of the RMA Part 2 (5)(2) is given effect.

Part 4 - The voice of Iwi, Hapū and Community

Insufficient information is the issue, but this should not allow the agrichemical users to place risk on others. This submission speaks loudly to democracy and provides the voice of those effected by the use of agrichemicals. People should not be exposed to risk at the economic gain of Industry, it is morally wrong, to not take effective action. We request that the Bay of Plenty Regional Council take this opportunity to take effective action and listen to the voice of the 'people' within this Proposed Plan Change 13.

Tommy Wilson of Pirirakau has avidly campaigned and participate in every forum available, for the research of agrichemical effects on human health and the environment, in response to this submission Tommy adds¹⁴;

"This is so important given the Kiwifruit industry is about to increase 3-fold over the next ten years and that means a 3-fold increase of pirau (poison) Agrichemicals.

If we can accept each hectare of our whenua paid for with the blood of our ancestors is being drenched by 2.5 kilograms of pure copper sulphate (documented on every orchards spray plan) up to ten times every summer to supposedly combat the PSA virus then this equates to 50-100 tonnes of pure poison - every year. And where does this end up?

Well one thing we know is the spray fairies don't take it away and not does Zespray! Sadly, this copper-based spray has a shelf life of 65 years so our tamariki (children)will inherit our short-sighted greed before need. We are the Spray of Plenty and we are killing our whenua and our Whanau.

So, I totally Tautoko (support) this important kaupapa Julie and will happily stand in front of any board both Maori and Non-Maori to support it

Kia kaha Whanau o Te Pirirakau

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¹⁴ Email 16th April 2018