Air

Recommendations in response to submissions on the Proposed Regional Plan for Northland - Section 42A hearing report

Date: 3/07/2018
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Northland REGIONAL COUNCIL

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Purpose and format of the report

1. This report provides the hearing panel the rationale for the recommended changes to the Air provisions in the Proposed Regional Plan for Northland (the Plan) in response to submissions. The recommended changes are set out in the document *Proposed Regional Plan for Northland – S42A recommended changes.*

2. The recommendations made in this report are the opinion of the author and are not binding on the hearing panel. It should not be assumed that the hearing panel will reach the same conclusions.

3. The authors recommendations may change as a result of presentations and evidence provided to the hearing panel. It's expected the hearing panel will ask authors to report any changes to their recommendations at the end of the hearing.

4. The recommendations focus on changes to the Plan provisions. If there is no recommendation, then it's to be assumed that the recommendation is to retain the wording as notified.

5. Generally, the specific recommended changes to the provisions are *not* set out word-for-word in this report. The specific changes (including scope for changes) are shown in the document *Proposed Regional Plan for Northland – S42A recommended changes*.

6. This report is structured with a focus on the key matters for the air provisions raised in submissions. The key matters are:

    - Outdoor burning in Whangarei and Kerikeri
    - Chimney heights
    - Dust from unsealed roads
    - Other air discharges

7. Matters covered by submissions that fall outside the key matters are addressed in the "Other matters" section in less detail.

8. The approach of addressing matters raised in submissions (rather than addressing submissions and/or and submission points individually) is consistent with Clause 10 of Schedule 1 to the RMA.

9. This report should be read in conjunction with section *seven – Air* in the Section 32 report.

Report author

Author 1

10. My name is Michael James Payne and I have overall responsibility for this report. I work as a Policy Analyst for the Northland Regional Council (regional council). For further details about my qualifications and experience, refer to the s42 report: *General approach and procedural issues.*

Author 2

11. My name is Jon Trewin and I drafted the *dust from unsealed roads* section of this report. I work as a Policy Analyst for the Northland Regional Council (regional council). For further details about my qualifications and experience, refer to the s42 report: *General approach and procedural issues.*

12. The following council staff and consultants have assisted me with the preparation of this report:

- Stuart Savill, Consents Manager, Northland Regional Council
- Obi Khanal, Air Quality Specialist, Northland Regional Council

13. Although this is a council hearing, I have read the Code of Conduct for Expert Witnesses contained in the Practice Note issued by the Environment Court December 2014. I have complied with that Code when preparing this report and I agree to comply with it when giving oral presentations.

About the Air provisions

14. The relevant provisions in the Proposed Regional Plan for Air addressed in this report are:

Definitions

- Abrasive blasting
- Ambient air quality
- Dust sensitive area
- Incineration device
- Odour-sensitive area
- Outdoor burning
- Smoke-sensitive area
- Wet abrasive blasting

Rules

- C.7.1.1 Outdoor burning – permitted activity
- C.7.1.2 Outdoor burning in the Whangarei and Kerikeri airsheds - permitted activity
- C.7.1.3 Outdoor burning for fire training purposes – permitted activity
- C.7.1.4 Outdoor burning for biosecurity purposes – permitted activity
- C.7.1.5 Burning for energy (electricity and heat) generation less than 40kW – permitted activity
- C.7.1.6 Burning for energy (electricity and heat) generation more than 40KW – permitted activity
- C.7.1.7 Existing authorised burning for energy generation – restricted discretionary activity
- C.7.1.8 Burning not a permitted, restricted discretionary or a non-complying activity – discretionary activity
- C.7.1.9 Outdoor burning – non-complying activity
- C.7.2.1 Wet abrasive blasting – permitted activity
- C.7.2.2 Dry abrasive blasting within an enclosed booth – permitted activity
- C.7.2.3 Discharges to air from a closed landfill – permitted activity
- C.7.2.4 Discharges to air from industrial and trade activities - permitted activity
- C.7.2.5 148 Discharges to air from the use of public roads by motor vehicles - permitted activity
- C.7.2.6 Discharges to air not specifically regulated in the plan - permitted activity
- C.7.2.7 Discharge into air not a permitted, controlled, restricted discretionary, non-complying or prohibited activity – discretionary activity

Policies

- D.3.1 General approach to managing air quality
- D.3.2 Burning and smoke generating activities
- D.3.3 Dust and odour generating activities
- D.3.4 Spray generating activities
- D.3.5 Activities in the Marsden Point airshed

Maps

- Aisheds

National Environmental Standard for Air Quality

The National Environmental Standards for Air Quality (Air Quality NES) are regulations made under the Resource Management Act 1991 which aim to set a guaranteed minimum level of health protection for all New Zealanders[1].

The Air Quality NES came into effect on 8 October 2004. They are made up of 14 separate but interlinked standards.

These include:

- seven standards banning activities that discharge significant quantities of dioxins and other toxics into the air
- five standards for ambient (outdoor) air quality
- a design standard for new wood burners installed in urban areas
- a requirement for landfills over 1 million tonnes of refuse to collect greenhouse gas emissions

Regional councils and unitary authorities are responsible for managing air quality under the Resource Management Act. They are required to identify areas where air quality is likely, or known, to exceed the standards. These areas are known as airsheds.

National Environmental Standards for Electricity Transmission Activities

The Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009 (NES-ETA) came into effect on 14 January 2010. The NES-ETA sets out a national framework for activities on existing electricity transmission lines.

The NES-ETA sets up a permissive regime for electricity transmission activities that permit activities, subject to conditions to ensure that significant adverse effects on the environment are not created. The NES-ETA only applies to existing transmission lines. It does not apply to the construction of new transmission lines, to substations or electricity distribution lines carrying electricity from regional substations to electricity users[2].

Of relevance to the air quality provisions in the Proposed Regional Plan, the NES-ETA contains permitted, controlled or restricted discretionary activity regulations for abrasive blasting and applying protective coatings to transmission structures including power pylons, i.e. Regulation 25 and 26 of the NES-ETA.

Overview of submissions

[1] Ministry for the Environment, 9 January 2018. Retrieved 1 June 2018. www.mfe.govt.nz/air/national-environmental-standards-air-quality/about-nes

[2] Ministry for the Environment, 6 October 2015. Retrieved 1 June 2018. http://www.mfe.govt.nz/more/energy/national-environmental-standards-electricity-transmission-activities/about-nes

15. A total of 46 submitters made submissions on the Air provisions, and these were broken up into 197 submission points. There were 11 further submissions.

16. Submitters can generally be grouped as;

- Trade and industrial representatives
- Horticulture and agriculture representatives
- Local Government
- Supporters of outdoor burning
- Those who oppose outdoor burning
- Those that seek amendments to manage dust from unsealed roads

Outdoor burning in Whangarei and Kerikeri

Submissions and Analysis

17. In Northland, outdoor burning to dispose of garden waste, orchard waste and household waste is common practice. In the Proposed Plan outdoor burning is managed through permitted activity rules C.7.1.1 – C.7.1.4, Discretionary activity C.7.1.8 and non-complying activity C.7.1.9.

18. The general approach taken in the Proposed Plan is to permit outdoor burning with conditions to manage nuisance effects and to restrict the items that can be burnt to manage other environmental effects.

19. The Proposed Plan takes a more restrictive approach (Rule C.7.1.2) to open burning in Whangarei and Kerikeri because of higher number of complaints about smoke nuisance and winter air quality issues in Whangarei. This largely rolls over the approach to managing air quality in Whangarei from the Reginal Air Quality Plan, 2004 and introduces those more restrictive provisions to Kerikeri.

Burning in the Kerikeri Airshed

20. Submissions on outdoor burning largely focused on the proposal to introduce restrictions for burning in the Kerikeri Air Shed. The Proposed Regional Plan sought to introduce

setbacks for outdoor burning that would, in most cases require resource consents to be approved to burn in Kerikeri township as well as the rural residential and smaller rural properties surrounding Kerikeri.

21. The majority of submissions either sought that the additional restrictions for Kerikeri be removed or that council limit the restrictions to the urban area through mapping or by allowing for burning on properties over a certain size. Submitters suggested that 1000m^2, 3000m^2 or 4000m$^{2.}$ could be suitable thresholds.

22. Several of the submitters that opposed the proposed restrictions state that open burning of shelter belt trimmings, garden waste and pest plants is a normal and necessary activity in the Kerikeri area[3]. Some submitters go on to state that the alternatives for disposing of green waste are limited and where the do exist they are too expensive to dispose of the large volumes of waste generated on rural residential and rural properties[4].

23. Six[5] of the 21 submitters sought that the proposed restrictions be retained or become more restrictive.

24. In addition to reviewing submissions, I had another look the data council holds on air quality and complaints about smoke in the Kerikeri Airshed.

25. Continuous PM10 monitoring shows, there are no significant long-term air quality issues in Kerikeri.

26. While monitoring data shows that air quality is generally good in the Kerikeri Airshed it is also useful to analyse the number of complaints / incidents received as this can be a useful indicator to determine if smoke nuisance is an issue for the community.

27. Since 2012 there has been an average of 18.8 incidents per year in the Kerikeri Airshed where residents have notified Northland Regional Council or Far North District Council of nuisance effects of outdoor burning within the Kerikeri Airshed.

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[3] Batham M, Lee H and Evans L
[4] Lee H and Thorburn D
[5] Miller M and Batchelor T, Leonard B, Hulse D, Northland Fish and Game, Fire and Emergency New Zealand and Vision Kerikeri.

28. Based on the number of incidents of smoke nuisance reported to district and regional councils between 2002 and 2016 there is no clear indication that the number of complaints is increasing or decreasing over time. There are no clear trends in the data.

29. The number of complaints for the Kerikeri area is not significantly different to other rural centres in the region. In my view, 18-19 incidents a year does not demonstrate there is a significant smoke nuisance issue in Kerikeri.

30. Based on feedback from submitters and further analysis of complaints which identified that the scale of the issue is not as significant as previously thought it is recommended that amendments are made to Rule C.7.1.2 to remove all references to the Kerikeri Airshed.

31. In addition to the above matters, discussion with the public during the consultation period highlighted that the use of setbacks has caused some uncertainty. Several submissions[6] on this rule have requested that the rule utilise a threshold based on property size. This allows nuisance effects of smoke to be managed across a variety of property sizes and shapes. However, for reasons of clarity and ease of enforcement, I recommend that C.7.1.2(3) be replace with a clause restricting the permitted activity to burning on properties over one hectare.

32. Another matter raised in the submission from Fire and Emergency New Zealand is the need for a new clause, in Rules C.7.1.1, C.7.1.2 and C.7.1.3. requiring burners to obtain approval to burn under the Fire and Emergency Act 2017 during a prohibited or restricted fire season. This would give Fire and Emergency New Zealand discretion over whether an activity meets the permitted activity condition. I don't believe this is a valid option as the courts have determined that councils cannot retain later discretion through permitted activity rules[7].

33. It would be possible to include a note advising readers that Fire and Emergency New Zealand approval may be required. I don't feel a note is necessary. This information will be readily available outside the Proposed Plan on council's website and in pamphlets on burning. Council staff have been working with Fire and Emergency New Zealand to improve publicity around the requirements of regional plans and the need for fire permits during restricted and prohibited fire seasons.

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[6] Lee H, Ayr A and Lee T.
[7] See for example Carter Holt Harvey vs Waikato Regional Council [A123/08]

Recommendation

34. Remove references to Kerikeri in rules C.7.1.1- Outdoor burning- permitted activity and C.7.1.2. – Outdoor burning in the Whangarei and Kerikeri airsheds- permitted activity.

Evaluation of recommended changes

35. Section 32AA, RMA requires an evaluation of proposed changes to the Plan. The changes, while potentially more than minor in effect, are considered to be within the scope of the preferred management option as set out in Section 7.5 of the Section 32 report and therefore do not require further evaluation.

44. Section 32AA, RMA requires an evaluation of any changes that have been made to, or are proposed for, the plan since the RMA s32 Evaluation Report was completed. I believe that the proposed changes are that most appropriate way to achieve the high level objectives in Section 7.5 of the Section 32 report, as well as the recommended new 'air quality' objective to be included in section F of the plan. I do not consider that the proposed amendments will result is any additional environmental, economic, social or cultural costs but I do consider that it will lead to beneficial economic and social effects.

Chimney heights

36. The policies and rules managing burning require stack / chimney heights to be calculated in accordance with Appendix *H.3 – Chimney height requirements*. The appendix sets out a method for calculating chimney heights that are desirable in normal circumstances.

Submissions and analysis

37. Two submissions were received seeking amendments to the proposed Chimney height requirements. The submissions from Fonterra and Bioenergy Association are summarised below;

38. Fonterra generally supports Rule C.7.1.6[8] which permits discharges of contaminants to air for energy generation. However, Fonterra has concerns about criterion (4) of Rule C.7.1.6 which requires the chimney height to be calculated in accordance with Appendix H.3. They state the calculation method proposed in Appendix H.3 is overly complex. Fonterra request that a simpler table is used, such as that contained in the Canterbury Air Regional Plan (see page 8-17 of the Canterbury Air Regional Plan).

39. The Bioenergy Association notes that the bulk of what is in the rules for the calculation of chimney height is based on chimneys for coal burning appliances. For the most part focusing on SO_2 concentrations and emissions. Point 13 states that for liquid or solid fuels including untreated wood, a minimum SO_2 content of 0.5% should be assumed. Looking at the examples some aspects appear unnecessary and are going to result in some very high chimneys indeed. It is a very different approach to other regions such as Nelson and Canterbury for the same thing. It will result in crazy chimneys for natural gas burning

[8] Rule C.7.1.6 Burning for energy generation more than 40 kW – permitted activity s

equipment. Bioenergy Association would like to see a more common approach across all regions.

40. Appendix H.3 was carried over from the Regional Air Quality Plan 2004. The appendix is focused on the calculation of flue gases mass emission rate that is then used to infer a stack height from a series of charts (nomogrpahs). This approach is based on the British Memorandum for Stack Heights, 1956 with amendments to suit New Zealand Conditions.

41. Council engaged Deborah Ryan, Associate Air Quality Consultant for Jacobs New Zealand Limited to evaluate several aspects of the proposed approach and to comment on the proposals to replace Appendix H.3 with a simpler approach, similar to that taken in the Canterbury Air Regional Plan and the Nelson Air Quality Plan.

42. Before I discuss the proposals put forward by Fonterra and the Bioenergy Association it is worth pointing out some of the short comings and strengths Ms Ryan identified in the proposed approach;

- The proposed approach contains elements that are likely to be out of date.
- The original nemographs, produced for the British Memorandum for Stack Heights included a scale for both $S0_2$ and NO_2 mass emission rates. It is unclear why Appendix H.3 dispensed with the two scales.
- Appendix H.3 has a strong focus on SO_2. Using SO_2 to infer chimney height may be appropriate for coal and fuel oil (depending on sulphur content) but is likely to be inappropriate for wood.
- The approach in H.3 has the advantage of covering a range of activity scales that are not covered by the Nelson and Canterbury approaches.

43. A full copy of Ms Ryan's report advice has been included in appendix A of this report.

44. In short both submitters are seeking a simpler method to calculate chimney height. I agree that method proposed in Appendix H.3 is complex and that the alternatives proposed by the submitters are a lot easier to use.

45. In my opinion, the Canterbury approach is the easiest to use, out of the two options suggested by the submitters and is the best fit for the Proposed Plan. Unfortunately, the Proposed Plan cannot simply adopt Schedule 5 of the Canterbury Air Regional Plan. The heat output thresholds and fuel types specified in the Canterbury Air Regional Plan are

different to those specified in the Proposed Regional Plan. One option to get around this issue to amend the Proposed Plan to reflect the combustion rules in the Canterbury Air Regional Plan. However, there is no scope in submissions to make this amendment. Even if there was scope, I believe there would be an element of unfairness in doing so. The change would require some operators to get resource consent to operate existing facilities. This change was not notified and the people affected by the change have not had the opportunity to comment.

Table 1: Regional Plan permitted activity thresholds for combustion rules (MW)

	Northland	Nelson	Canterbury
Coal	5	Not permitted	1
Wood	2.5	Not permitted	1
Gas/LPG	10	4	5
Kerosene	-	2	-
Diesel	-	5	2
Oil	5	Not permitted	Not permitted

46. A negative point of deviating from the approach taken in the Proposed Plan is that the Proposed Plan covers a wider range of burning appliances / heat outputs than the Canterbury Air Regional Plan and the Nelson Regional Plan. If the proposed approach was replaced with a tabular format it is likely that the table would cover a smaller range of burning appliances / heat outputs. The range would be smaller to manage the length of the table and the cost in developing it.

47. Provided the table covers the range of heat outputs in permitted activity Rule C.7.1.6. I believe a shorter range like that used in Canterbury is reasonable. Where a burning appliance is used that exceeds the permitted activity threshold resource consent is required by Rule C.7.1.8. Effects on the environment and measures to mitigate those effects, including chimney design can be assessed as part of the resource consent.

48. Overall, I believe that the proposal to replace Appendix H.3 with a table similar to that in Appendix 5 of the Canterbury Air Plan would make the Proposed Plan more user friendly. I recommend this approach be adopted.

49. Staff are developing a table of chimney heights for various fuel and heat outputs. This will be tabled for the commissioners and submitters comment.

Dust from unsealed roads

Submissions and Analysis

50. The Proposed Regional Plan introduces Rule C.7.2.5, permitting the discharges of dust to air from motor vehicles using unsealed roads, subject to each road controlling authority having a current programme in place that sets out the priority sites in the district for mitigating the effects of dust on dust sensitive areas.

51. As road controlling authorities with a function to maintain public infrastructure, all three district councils submitted on this rule.

52. Far North District Council and Kaipara District Council both want Proposed Rule C.7.2.5 to be deleted. Whangarei District Council wants this proposed rule deleted or at least the associated condition requiring each council to have a list of priority sites for dust mitigation to be deleted.

53. Far North District Council (FNDC) submitted that:
    - There is uncertainty with having this rule as it is not clear who will have to comply with the rule (the driver or the road controlling authority).
    - There is no direction to road controlling authorities on what is required in a dust mitigation programme.
    - FNDC already have a dust management policy in place that acknowledges that dust is affecting rural communities.
    - FNDC also have other planning initiatives underway including revisions to the district plan to potentially change land use where dust is generated and the Long-Term Plan where funding can be sought for dust mitigation.
    - A significant proportion of funding is obtained from NZTA which is subject to changing criteria.

54. Kaipara District Council submitted that:
    - A requirement to seal or implement dust suppression is expensive to the point of being unaffordable and contradicts council obligations under the LGA to deliver cost effective services.

55. Whangarei District Council (WDC) submitted that:

- Road users rather than the road owner are responsible for the generation of dust emissions on an unsealed road. Therefore, the focus should be on road users. WDC seek clarification on whether NRC can restrict the use of a public road as WDC cannot.
- The issue should be better defined as agencies have been working together through the Dust from Unsealed Roads Mitigation Framework[9].
- WDC are currently drafting 100m setback rules for new dwellings from unsealed roads under the proposed rule plan changes[10].

56. The district councils have, in my opinion, misread the intent of the rule which is intended to provide a clear position on how the regional council views how effects from this activity should be managed – i.e. not as an RMA issue but a Land Transport Act/Local Government Act issue.

57. I believe there are two principal reasons why this proposed rule is needed.

58. The first is to provide **certainty.** The current Regional Air Quality Plan is silent on the matter of dust from unsealed public roads. Under S15(2A) RMA, this meant the activity was effectively permitted as an unsealed public road is not an industrial or trade activity requiring of consent. This has however led to uncertainty about the management approach the regional council was taking.

59. Without recourse to Section 15, Section 17 RMA allows Council to take enforcement action against 'offensive or objectionable effects'. The usual channel is to serve an abatement notice – this requires 7 days' notice to comply if there is no rule in a plan or otherwise a consent is required under RMA Part 2 (RMA S324 (d)). Council have resisted taking the approach of serving abatement notices due to implementation issues - it is not clear whether this should be served on the road user or road owner. It is also counterproductive to the collaborative approach that councils have taken as laid out in the Regional Dust from Unsealed Roads Mitigation Framework (2014) (the Framework). The Framework clearly lays out the expected roles that agencies will play in managing this

[9] The Regional Dust from Unsealed Roads Mitigation Strategy draws together all the responsible agencies (Northland District Health Board, Regional Council, District Councils, NZTA and clearly defines roles and responsibilities to manage the dust issue).

[10] The Hearings Commissioners for Plan Change 85 of Whangarei District Plan (Rural Provisions)

issue. The regional council has the important function of information gatherer through its role of monitoring roadside dust. The district councils, as road controlling authorities, are in turn expected to prioritise intervention on the worst affected roads, subject to funding.

60. The proposed permitted rule clearly sets out the Council's position, without recourse to the uncertainty of S17 RMA. Council does not expect to regulate dust from unsealed public roads but will fulfil its obligations under the Framework to monitor roadside dust. Conversely, the regional council expects that district councils will fulfil their obligations under the Framework to identify high priority sites for dust mitigation. How they do this is up to them but it is understood that all three councils have a prioritised list based on criteria contained in the NZTA document – General Circular Investment: No 16/04. Whangarei and Far North have proposed dust mitigation for these sites whereas Kaipara has not. In any event a condition in the rule requiring councils hold a programme of priority sites for mitigation is appropriate, given the understanding of roles outlined in the Framework.

61. The second reason is to **avoid unintended consequences.** Without a dedicated permitted rule, dust from unsealed roads would be 'caught' by 'catch-all' rule C.7.2.6 (Discharges to air not specifically regulated in the plan – permitted activity). This is a rule that doesn't exist in the current Regional Air Quality Plan but was deemed necessary to give Council more power over air discharges that have previously been left to be dealt with under Section 17 RMA. This is inflexible as this requires Council to give 7 days' notice or more to comply when issuing abatement notices under S17 for air related nuisance incidents.

62. As an activity that can have offensive and objectionable effects on people and the environment, it is likely that many unsealed roads would not comply with rule C.7.2.6. This would require the immediate mitigation of the dust to remain a permitted activity or, possibly, require the road controlling authority to apply for a consent to operate their unsealed road network. Again, it is not clear who is required to mitigate the dust – the road user or road owner. Rule C.7.2.6 could ultimately reduce the flexibility that district councils have to manage their roading budget. It is the regional council's Council's preferred approach therefore that this issue be dealt with through the Framework rather than as an RMA issue.

63. Turning to the other submissions, both Golden Bay Cement and Northland Fish and Game would like the rule to be retained as notified. While it is recommended that the rule

is retained, it is recommended that some minor changes are made to the wording for the sake of clarity.

64. New Zealand Transport Agency request a small wording clarification to the rule as follows: *Discharges <u>of dust</u> to air from the use of <u>unsealed</u> public roads by motor vehicle.* I recommend this be accepted as it clarifies the intent of the rule.

65. Northland District Health Board (NDHB) have requested the addition of a new condition to permitted rule C.7.2.5 that '*activities resulting in more than 15 heavy vehicles a day on unsealed roads that are likely to cause a breach of the National Environmental Standards Air Quality (NESAQ) 2004 must avoid, remedy or mitigate any adverse effects on dust sensitive areas'*. Pipiwai Titoki Advocacy for Community Health and Safety Group have requested a similar change to this rule so that activities that generate heavy commercial vehicles that operate on public roads that are likely to breach the NESAQ 2004 where people may be exposed (or alternatively on 'dust sensitive areas') must avoid, remedy or mitigate any adverse effects.

66. I do not agree with either of these conditions as they lack certainty which is a key requirement of a permitted activity rule. They are, in my opinion, better suited to being a matter of control attached to a controlled activity. However, I believe that even this will be problematic. Using the PM_{10} standards in the NESAQ 2004[11] as the trigger for a consent requires monitoring to identify that the PM_{10} exceedance is caused by heavy vehicles from a particular activity. However, monitoring devices (known as Beta-Attenuation Monitors or BAM) do not distinguish dust from a heavy vehicle travelling from a forestry block, quarry, dairy factory or for that matter dust from a light vehicle. It is also a relatively meaningless in the context of dust nuisance – 49 ug/m3 is compliant with the NESAQ but little different than 51 ug/m3 in terms of the effect on people's health and the environment. A more relevant test would be 'offensive and objectionable' dust effects as determined by a Council enforcement officer, probably using FIDOL (Frequency, Intensity, Duration, Offensiveness, Location). So that if identified vehicles are causing a dust nuisance, consent from the generator of those vehicle movements (the forestry company for example) would be required. The consent holder would be required to demonstrate,

[11] The threshold in the NESAQ for PM_{10} is no more than one exceedance of 50ug/m3 over an averaging period of 24 hours per year.

through a dust management plan, how dust was to be controlled on unsealed public roads.

67. Whether this would achieve any meaningful change on the ground is debatable and come down to the efficacy of dust control measures. Presently forestry companies impose speed limits on their drivers, contribute funding towards dust mitigation measures and use of water trucks. This is not legislatively required but part of a voluntary commitment to addressing the problem. Despite this, dust remains at acute levels in the worst affected areas[12][13]. In order to reliably reduce dust, road sealing is probably the only option for heavy trafficked routes. Funding can now be applied for by road controlling authorities from the NZTA using criteria in NZTA General Circular Investment: No 16/04 to seal roads that are at greatest risk of dust.

68. Overall, I question the utility and workability of such a rule and prefer the existing proposed condition that councils must have a programme of priority sites for mitigation. This, in my opinion, is a more workable pathway to getting to the root cause of the issue – that is reducing dust through road sealing.

69. Patuharakeke Te Iwi Trust Board submit that the rule should be deleted as '*Council have been made aware of the effects on health and wellbeing of marae and communities on unsealed roads'.* I take from their submission that Patuharakeke would in fact like controls on managing road dust to be increased. Whilst I agree that this is clearly an issue for the region (as evidenced by council monitoring and complaint data) I do not agree that the rule should be deleted for the reasons outlined above.

70. Turning to requests for changes to plan policy, both Northland District Health Board (NDHB) and Pipiwai Titoki Advocacy for Community Health and Safety Group have requested the insertion of a new policy D.3.6 that requires Council monitoring of PM_{10} from unsealed roads. I do not support this proposed change. This is because their requested policy functions more as a non-regulatory method and no non-regulatory methods have been included in the plan (council have decided that the plan should contain regulatory content only).

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[12] Attached is a spreadsheet of prioritised sites for bust sealing using criteria in General Circular Investment: No 16/04.

[13] Attached are monitoring results from Wright Road undertaken following dust mitigation measures

71. I also do not agree with the proposed change requested by NDHB to Policy D.3.3 with a new condition relating to breaches of the NESAQ 2004 for the reasons discussed above for the submitter's proposed rule. This change is not necessary, in my opinion, as this is the basis of the permitted rule – if the road controlling authority does not have a programme to mitigate dust then they will require a resource consent.

72. I do agree with the minor changes the submitter proposes to Policy D.3.3. clauses b) (replacing 'adjacent' with 'potentially affected' as sensitive areas do not need to be 'adjacent' to a discharge to experience adverse effects) and clause c) to change 'manage' to 'avoided, remedied or mitigated' as this is more consistent with the RMA.

73. Finally turning to the request by Pipiwai Titoki Advocacy for Community Health and Safety Group for a policy requiring Council prepare an action plan to achieve compliance with the NESAQ. I understand that regional councils must prepare an action plan as a requirement of the NESAQ, where there is a breach of a prescribed standard. As this is already a mandatory requirement for regional councils, I do not think it needs to be repeated in the plan.

Recommendation

74. I recommend the following changes to Rule C.7.2.5
Discharges <u>of dust</u> to air from the use of <u>unsealed</u> public roads by motor vehicle

75. I recommend the following changes to Policy D.3.3
Dust and odour generating activities

…….

1)b) ~~adjacent~~ <u>potentially affected</u> dust sensitive areas and/or odour sensitive areas, and

1)c) details of good management practice that will be used to control dust/and or odour to the extent that adverse effects from dust and/or odour at the boundary of the site are ~~managed.~~ <u>avoided, remedied or mitigated.</u>

Evaluation of changes

76. Overall, I consider these changes to be minor and do not change the conclusions reached in the S32 report.

Re-consenting existing discharges to air

Submissions and analysis

77. Refining New Zealand and GBC Winstone are seeking a new controlled activity rule for re-Consenting industrial discharges to air.

78. In support of this submission point Refining New Zealand made the following statements:

> *The Company holds a number of existing resource consents for discharges from its Marsden Point site. The management of these resource consents is such that there is a considerable amount of information on the effects on the environment resulting from them. This information concludes that the effects are able to be appropriately managed and as such a consenting framework that provides for their 're-consenting' is, in the Company's opinion, appropriate. It is noted that the Northland Regional Council holds this information, although a copy of the monitoring results can be provided. The existing discharges from the Site of relevance to this rule include all stormwater and waste water from the operations.*
>
> *In addition to this, given the Company's Marsden Point operation's status as Regionally Significant Infrastructure, it is appropriate (and in accordance with objectives 3.7 and 3.8 and policies 5.3.2 and 5.3.3 of the RPS) to provide a greater level of certainty to the Company than is provided in the notified pRP, while at the same time ensuring the potential environmental effects are appropriately addressed.*
>
> *In light of the above, the Company considers that an appropriate outcome will be provided via a controlled activity rule for re-consenting and new discharges from the Refining NZ Marsden Point Oil Refinery Site. Such a rule would encompass all discharges from the Site and therefore ensure that rules C.6.2.3. C.6.4.3, C.6.6.1 and C.6.6.3 (being the relevant stormwater, waste water and industrial and trade discharge rules) would no longer be applicable to the Site. Such an approach broadly aligns with the approach Council is proposing for water takes via rule C.5.1.6 (and the changes sought by the Company to rule C.5.1.6).* [14]

79. In their submission, GBC Winstone made the following statement in support of a controlled activity for re-consenting industrial discharges to air:

> *given the level of investment and established nature of the regionally significant industrial activities such as the GBC Winstone operation at Portland, and that the effects of the continuation of this activity is known, it considers that a controlled activity status is appropriate for re-consenting of existing discharges.*[15]

[14] Refining New Zealand, P18
[15] GBC Winstone, P42

80. Before I discuss the merits of the relief sought, I would like to address Refining New Zealand's points on regionally significant infrastructure. Their submission correctly points out the Refinery at Marsden Point is Regionally Significant Infrastructure and that the Regional Policy Statement 2010 includes objectives and policies on Regionally Significant Infrastructure[16].

81. In my opinion, the objectives and policies do not direct council to apply a less restrictive activity status for discharges from regionally significant infrastructure. I do not believe that a lesser activity status should be adopted solely on the basis of an activity being Regionally Significant Infrastructure.

82. With that being said, I do believe there is a case for introducing a less restrictive activity for re-consenting industrial discharges to air in Northland. This position is influenced by the activity being assessed as being appropriate during the initial resource consent process, as well as the fact that Northland's ambient air quality is generally good and we are compliant with national requirements[17][18].

83. This activity status would be consistent with a similar rule for reconsenting discharges to air from burning for energy or electricity[19].

84. In my opinion, the key to successfully managing this activity as a controlled activity is ensuring the matters of control provide adequate scope to impose conditions that adequately manage effects. I have discussed this matter with Stuart Savill, council's Consents Manager and we believe this can be achieved.

85. In addition to the discharges discussed above, Refining New Zealand is seeking a controlled activity for *"authorised burning for the Refining New Zealand Marsden Point site"*. The submitter has not provided evidence of what activities this rule would cover and I have not seen any evidence to suggest that a specific rule for the Refining New Zealand site is necessary or appropriate.

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[16] *objectives 3.7 and 3.8 and policies 5.3.2 and 5.3.3 of the Regional Policy Statement for Northland 2016.*
[17] The National Environmental Standards Air Quality 2004 (amended 2011).
[18] Northland Regional Council, *Regional plan review – topic summary – Air quality, 2014*
[19] Rule C.7.1.7

Recommendation

86. That a new restricted discretionary activity rule for re-consenting industrial discharges to air is inserted into section C.7.2 as shown in Proposed Regional Plan - S42A Recommendations.

Evaluation of changes

87. Section 32AA, RMA requires an evaluation of any changes that have been made to, or are proposed for, the plan since the RMA s32 Evaluation Report was completed. I believe that the proposed changes are that most appropriate way to achieve the high-level objectives in Section 7 of the Section 32 report, as well as the recommended new 'Air quality' objective to be included in section F of the plan as well as the regionally significant infrastructure objective. I do not consider that the proposed amendments will result is any additional environmental, economic, social or cultural costs but I do consider that it will lead to beneficial economic and social effects. This is in part through reduced resource consent costs and by providing certainty that these existing, lawful activities can continue to operate.

Discharge of fumigants

Submissions and analysis

88. Rule C.7.2.4 in the Proposed Plan permits the discharge of contaminants to air from a range of industrial and trade activities including, premises used for fumigation for quarantine purposes.

89. Tegal Foods limited and Northland District Health Board (Northland DHB) submitted on this provision. Council also received further submissions from Northport Ltd and Methyl Bromide Reduction Inc in response to the submission by Northland DHB.

90. Tegel Foods Limited made the following statement in relation to fumigation that they undertake in their hatcheries;

> *"Within the chicken hatcheries, the eggs are fumigated for biosecurity purposes, rather than quarantine purposes to eliminate pathogens and reduce the risk of disease. Tegel consider that fumigation for biosecurity purposes should be provided for in the rule as it forms a necessary and important function."*

91. Tegel Foods Limited have not provided detail on their fumigation activities which makes it difficult to comment on the merits of their request. Given the lack of information in the submission I unable to support or oppose the relief they are seeking. The submitter may wish to provide more information to support their proposal at the hearing.

92. Northland DHB are seeking that "*premises used for fumigation for quarantine purposes"* is removed from rule C.7.2.4. Fumigation would become a discretionary activity. In support of their position Northland DHB stated that these substances are "*toxic"* and *"carsinogenic".* They also state:

> *Similarly, case law has confirmed that the HSNO regulations are insufficient to protect against off-site*
> *effects for large-scale use of methyl bromide and supports comprehensive regulatory control of such toxic agents (Envirofume v BOPRC [2017] NZEnvC 12).*
>
> *We are also aware that methyl bromide is being phased out and we are concerned that the substance that will replace it is likely to be similarly toxic in nature (it being a necessity to kill insects) and present similar potential off-site effects.*

93. Two further submissions were received in opposition to the original submission from Northland DHB. In short, the further submissions state that the use of fumigants is subject

to controls imposed under the Hazardous Substances and New Organisms Act 1996 and the Health and Safety at Work Act 2015. In their further submission Northport state;

> *The EPA requires regular monitoring and reporting to the EPA, Worksafe and NDHB. Northport has never breached the requirements of the EPA approval.*

94. I have read the case[20] referred to in the Northland DHB submission. The submitter suggests there are gaps in national legislation that need to be addressed in the Proposed Plan. These gaps are not immediately apparent to me. At this time, I am unable to support the relief sought by Northland DHB and therefore my recommendation is to retain rule C.7.2.4(16) as notified. If Northland DHB provides further evidence on this matter at the hearing then I am open to reviewing my position.

Recommendation

95. Retain rule C.7.2.4(16) as notified.

Objective for Air quality

96. As discussed in the General approach S42A report, the recommendation is to include specific objectives in the Plan. I have recommended including an objective for air quality. The objective is based on issues identified in Regional Plan Review 2014 and reflects the content of the polices and rules of the Proposed Plan.

Other matters

97. Refer to Appendix A for the summary of submission points, analysis and recommendations made on the Air Quality provisions not addressed in the key matters sections of this report.

[20] *Envirofume v BOPRC [2017] NZEnvC 12*

Appendix A - Response to other matters raised in submissions

Note – this table does not include the summary of submission points, analysis and recommendations made on the air quality provisions addressed in the key matters sections of the report.

Provision	Summary of main submission points	Discussion	Recommendation
General	Northland District Health Board are seeking amendments to the "offensive and objectionable dust or odour" condition used throughout the plan. The submitter believes it should align with the wording in national guidelines, produced by the Ministry for the Environment.	While the amendments are minor, I agree that it is beneficial to align the wording in the Proposed Plan with that in the Ministry for the Environment's *Good Practice Guide for Assessing and Managing Odour.*	Make amendments throughout the Proposed Regional Plan as shown in *Proposed Regional Plan - S42A Recommendations:*
General	Tegel Foods Limited are seeking that rules addressing outdoor burning are separated from rules addressing combustion emissions from energy.	The submitter appears to be seeking a new section be inserted into the plan for burning within an incineration device. I am open to supporting this relief but the benefit of making this change is not clear to me at this time.	No Change
Definition	Fonterra and GBC Winstone are seeking a minor change to the definition of ambient air quality. Horticulture New Zealand are also proposing a change. Tegel Foods seek that the definition in the Proposed Plan be retained.	Both Fonterra and GBC Winstone are seeking that the definition refers to *all existing activities……* I support the amendment because I believe the change improves clarity of the definition while retaining the original intent. I also recommend that the word *activities* be replaced with *sources.* In my opinion, this change in terminology is in keeping with the original intent but makes more sense when referring to natural sources. Impacts on air quality from natural sources are often not related to an activity i.e. salt spray from the sea is does	Amend the definition of *Ambient air quality* as shown in *Proposed Regional Plan - S42A Recommendations*

Provision	Summary of main submission points	Discussion	Recommendation
		not result from an 'activity'. There is no submission point requesting this change.	
Definition	Johnston J is seeking an amendment the definition of *"community controlled organisations"* to reflect that they are not always 'community controlled'. The submitter requests that the term *community controlled organisation* be replaced with *council controlled organisation.*	I don't feel strongly about using the term *community controlled organisation.* If a more appropriate term is put forward I am open to supporting the change provided the definition is retained as notified. The submitter has suggested replacing *community controlled organisation with* the term *council controlled organisation.* The meaning of council controlled organisation is set out in Section 6 of the Local Government Act 2002. The intent of the rule is to provide for outdoor burning at community events. Many community events are run by organisations other than councils and the organisations they control. Inserting the term *council controlled organisation* is limiting and would not fulfil the intent of the rule.	No change
Definition	New Zealand Transport Agency (NZTA) are seeking a new definition of activities sensitive to air discharges to support other relief that seeks that new rules are introduced for discharges from road and rail tunnels.	The proposed definition of *activities sensitive to air discharges* supports the new rules for road and rail tunnels suggested by NZTA. My recommendation is to not include new rules on discharges from road and rail tunnels. Consequently, I feel that the new definition sought by the NZTA is unnecessary. If the committee support the inclusion of rules specifically for discharges to air from road and rail tunnels then it may be worth including the proposed definition as well.	No change
Definition	GBC Winstone is requesting changes to the definition of dust sensitive areas. Tegel Foods are requesting a number changes to the	Tegel Foods are requesting a single definition for dust and odour sensitive areas rather than separating them	Amend the term 'indigenous habitat area' as shown in

Provision	Summary of main submission points	Discussion	Recommendation
	definition of odour and dust sensitive areas including combining these definitions. Pipiwai Titoki Advocacy for Community Health and Safety Group and Horticulture NZ seek that the definition of dust sensitive areas be retained.	out into definitions on '*odour sensitive areas'* and '*dust sensitive areas*' The list of sensitive areas for dust and odour are not identical. This recognises the different effects of dust and odour. I don't agree that amenity effects with dust are mainly concerned with soiling as airborne dust is both a nuisance and a health risk. Finally, I don't agree that the terms are confusing as a careful effects assessment should be able to identify these areas without much difficulty. Additionally, a number of these terms are used in the current Regional Air Plan without any confusion. GBC Winstone have particular concern with the definition of 'indigenous habitat area' believing it to be unclear and requesting reference to 'significant bird areas' and 'significant marine mammal and seabird areas'. These are unlikely to be relevant considerations for a discharge that is nearly always generated on land however, I agree that the term 'indigenous habitat area' is a little unclear and could at least benefit from referring to the new definition of indigenous vegetation recommended in the Proposed Plan as well as clarifying this also includes areas of indigenous species habitat.	*Proposed Regional Plan - S42A Recommendations*.
Definition	First Gas are seeking a definition of flaring *(combustion method to dispose of gas).*	The relief sought in this submission point is related to a submission point from First Gas that seeks a new rule for flaring of gas.	No change

Provision	Summary of main submission points	Discussion	Recommendation
		I cannot support a new rule for flaring gas at this time and consequently see no need for a new definition for '*flaring'* as it is not referred to in the Proposed Plan.	
Definition	First Gas and Tegel Foods are seeking a change to the definition of 'incineration device'.	The definition of *incineration device and* rules for incineration are not intended to cover energy generation or flaring of gas. For that reason, I support the relief sought by Tegel Foods. In respect to the submission point from First Gas, i would be surprised if someone interpreted *incineration device* as including flaring equipment. I do not feel that the note sought by the submitter is necessary. With that being said, if the submitter can demonstrate that there is a real need to explicitly exclude flaring I am open to supporting the change.	Make amendments as shown in the definition of incineration device as shown in the document titled *Proposed Regional Plan - S42A Recommendations*
Definition	The Egg Producers New Zealand and Tegel Foods Ltd are seeking a definition of poultry hatchery.	The relief sought in this submission point is related to a submission point on rule C.7.2.4. This is discussed on page 38 of this report. The submitters seek amendments to make discharges to air from poultry hatcheries a permitted activity. I am unable to support the relief sought in relation to rule C.7.2.4 and am consequently unable to support the insertion of this definition.	No change
Definition – smoke sensitive areas.	Tegel Foods are seeking amendments to specify that the definition of smoke sensitive areas only applies to outdoor burning.	I do not agree with the submitter. In my view, the impact of burning, whether it is open burning or enclosed burning, on residential buildings or other smoke sensitive areas is a valid consideration where there is potential for an activity to emit smoke.	No change
New rule	New Zealand Transport Agency is seeking an additional rule that permits emissions from	The discharge of emissions from motor vehicles, aircraft, trains, other sources (e.g. lawn mowers) is permitted by	Retain rules C.7.2.4 and C.7.2.6 as notified.

Provision	Summary of main submission points	Discussion	Recommendation
	motor vehicles, aircraft, trains, other sources (e.g. lawn mowers) including those on industrial and trade premises.	the RMA unless the discharge contravenes a National Environmental Standard [21]or a rule in a regional plan[22]. The Proposed Regional Plan does not have a specific rule for these discharges. They are generally permitted under rule C.7.2.6. I do not believe it is necessary to include a new rule specifically for vehicle emissions as it is adequately covered under C.7.2.6.	
New rule	New Zealand Transport Agency and Kiwi Rail are seeking additional rules permitting the discharge of contaminants from rail tunnels.	It is assumed that the submitters are seeking permitted activity status for vehicle emissions from road and rail tunnels. These discharges are permitted under proposed rule C.7.2.6 except where the discharge is occurring on a trade and industrial premises. On a trade and industrial premises, the discharge is permitted by C.7.2.4. I do not believe inserting specific rules for discharges from tunnels is necessary.	No change
New rule	New Zealand Transport Agency is seeking a new rule as follows; Spray application of surface coatings containing diisocyanates or organic plasticisers for maintenance of infrastructure: *1. <u>There must be no activities sensitive to air discharges within 30m of the activity.</u>*	The submitter is proposing a rule similar to a rule that was accepted into the Auckland Unitary Plan. The activity relates to small scale application of diisocyanates or organic plasticisers for road marking or graffiti guard. Although proposed rule C.7.2.6 permits the activity, subject to no offensive or objectionable effects across the boundary, the submitter is concerned that further conditions are required to ensure proper management of this activity when maintaining their roading infrastructure. I do not	Include a new rule managing effects from diisocyanates or organic plasticisers for purposes of maintaining infrastructure as shown in *Proposed Regional*

[21] RMA s15. (2)
[22] RMA s152A

Provision	Summary of main submission points	Discussion	Recommendation
	2. *There must be an exclusion zone that prevents public access within 15m of the activity.* 3. *The quantity of paint containing diisocyanates or organic plasticisers applied in a continuous application at a single location must not exceed 18 litres per day.*	object to the proposed rule or its conditions as it provides additional surety that offensive or objectionable effects across the boundary can be avoided.	*Plan - S42A Recommendations:*.
New rules	Tegel Foods Ltd are seeking several new rules and definitions relating to poultry farming. Permitted activities • existing poultry farms • converting existing indoor poultry farms to free range • existing or new poultry farm with less than 200 000 birds Restricted discretionary • discharges to air from poultry farming that are unable to meet the permitted activity conditions Definitions • Free range poultry	Tegal Foods Ltd are seeking a suite of permitted activity rules for discharges to air from poultry farming. The Proposed Plan treats poultry farming as a primary production activity. Discharges to air from primary production activities are permitted under Rule *C.7.2.6 – Discharges to air not specifically regulated in the plan – permitted activity*. Specific rules may be required if the poultry industry gives rise to effects that are so significantly different from other activities managed under this rule I have not seen information that demonstrates that the poultry farming is so different to other activities that it requires standalone rules. While I understand the desire to have rules catering for specific industries I do not believe it is necessary. My recommendation is to manage discharges to air under a single generic rule where possible. If the committee accepts my recommendation as discussed above there is no need to insert the poultry farming definitions as sought by the Egg Producers Federation of New Zealand and Tegel Foods limited.	Retain section C.7.2 as notified.

Provision	Summary of main submission points	Discussion	Recommendation
New rule	Refining New Zealand and New Zealand Transport Agency are seeking amendments or additions to the rules for abrasive blasting outside an enclosed booth. Both submitters operate Regionally Significant Infrastructure and undertake dry abrasive blasting as part of their infrastructure maintenance. Refining New Zealand is seeking a new controlled activity rule. New Zealand Transport Agency is seeking a new permitted activity rule.	New Zealand Transport Agency is seeking a new permitted activity rule for dry abrasive blasting outside an enclosed booth. They state that they undertake this activity from time to time as part of infrastructure maintenance. Refining New Zealand also undertake dry abrasive blasting as part of their maintenance programme and are seeking a new controlled activity rule for dry abrasive blasting outside an enclosed booth specifically for their site at Marsden Point. Section 7.6 - Dust of the section 32 report discusses the potential effects of abrasive blasting which include: silicosis from long term exposure to silica dust, spent blasting medium often contains heavy metals which can have adverse effects on aquatic life if it enters waterways. For outdoor abrasive blasting another effect that needs to be considered is the potential for nuisance effects on neighbours and the general public. The Resource Management (National Environmental Standards for Electricity Transmission Activities) 2009 (NES Electricity Transmission) contains rule for abrasive blasting outside an enclosed booth. I believe the NES Electricity Transmission provides an interesting reference point for the new rules requested by the submitters. I believe that outdoor abrasive blasting for infrastructure maintenance could be a controlled activity and that the NES Electricity Transmissions controlled activity rule in Regulation 26 could form the basis of a rule in the Proposed Plan.	That a new controlled activity rule for dry abrasive blasting outside an enclosed booth is inserted into C.7.2 as shown in Proposed *Regional Plan - S42A Recommendations:*

Provision	Summary of main submission points	Discussion	Recommendation
New Rule	Refining New Zealand are seeking that a new rule be inserted to provide for new air discharges at the Refining New Zealand site at Marsden Point as a restricted discretionary activity.	At this time, the submitter has provided very little information to support their relief sought which makes it difficult to understand why the relief is necessary. The submission does point out the Refinery at Marsden Point is Regionally Significant Infrastructure. The Regional Policy Statement 2010 includes several policies on Regionally Significant Infrastructure. In my view, the approach taken in the Proposed Plan is consistent with these policies. The policies do not direct council to apply a less restrictive activity status for discharges from regionally significant infrastructure. I do not believe that a lesser activity status should be adopted solely on the basis of a discharger being Regionally Significant Infrastructure. Given the potential scale of discharges from Refining New Zealand it may be inappropriate to exempt the activity from the full range of matters in part two RMA. In order to support the relief sought more information is required.	No change
New Rule	Refining New Zealand are seeking the following rule be inserted into the Plan: *The discharge of contaminants to air from activities in the Marsden Point Airshed that are not from the Northport or Marsden Point Oil Refinery are discretionary activities.* *<u>Notification</u>* *Resource consent applications made under this rule shall have particular regard to*	The Proposed Plan provides for a variety of non-industrial and industrial discharges to air as permitted activities. The Plan does not treat activities in the Marsden Point Airshed any differently to activities in other locations. The submitter has not provided reasons why this rule should be amended, other than to *protect ongoing operations* of Northport and the Marsden Point Oil Refinery.	No change

Provision	Summary of main submission points	Discussion	Recommendation
	potential cumulative effects, including with discharges to air from sites containing Regionally Significant Infrastructure. Northport and Refining NZ are potentially affected parties (in accordance with Section 95E) for all resource consent applications that are made under Rule C.7.2.X	It is difficult to assess the proposal without an assessment of the costs and benefits of the proposal. The submitter may wish to provide further information to support their proposal at the hearing.	
New Rule	First Gas are seeking new rules permitting the discharge of natural gas by way of venting and flaring.	The proposals by First Gas may have merit. First Gas have drafted rules that could be inserted into the Proposed Pan. On the face of it the rules appear to be reasonable and have a comprehensive suite of conditions. While the proposal appears to be reasonable I don't have the information required to support the proposal at this time. Information on the frequency and extent of flaring and venting gas would be useful to assess the need for a permitted activity rule as opposed to managing the activity under a resource consent. Also, the proposed conditions are quite technical. Further information on the risks these conditions are seeking to manage and how they have been derived would be helpful. The submitter has indicated that they will be attending the hearing. It is hoped that information to support their relief sought can be presented at the hearing.	No change
C.7.1.3	New Zealand Defence Force is seeking clarification that they fall under the ambit of '*a nationally recognised body authorised to undertake fire research or fire training activities'.*	It is my opinion that the New Zealand Defence Force is a '*a nationally recognised body authorised to undertake fire research or fire training activities'.*	No change

Provision	Summary of main submission points	Discussion	Recommendation
	The submitter is also states that the provisions should be consistent with the provisions and definitions in the Fire and Emergency Act, 2017.	In respect to the submitters second point, I agree that the plan should be consistent with national legislation, where possible. I was unable to identify a term in the Fire and Emergency Act that would replace the following; '*a nationally recognised body authorised to undertake fire research or fire training activities'* Similarly, I am unable identify any inconsistencies with the act. If the submitter can provide evidence demonstrating that there are issues with the proposed rule and how it can be improved I am open to supporting the changes they are seeking.	
C.7.1.3	Mr B Leonard is seeking two new clauses; *Add clause 3e) justification for burn* *Add Clause 4) burns are not in excess of 1 per 3-month period.*	Mr Leonard does not appear to have included evidence or an explanation of why he is seeking these changes. While his motives are unclear, I support adding words limiting the permitted activity to once every three months. In my opinion fire training could result in smoke discharging across property boundaries. If training occurred regularly this has the potential to offensive or objectionable and would therefore be inappropriate. Introducing a clause as suggested by the submitter would manage this risk. I have discussed this matter with Fire and Emergency New Zealand's Principal Rural Fire Officer for Northland – Myles Taylor he indicated that training in Northland is unlikely to breach the proposed condition. However, if a training facility was ever constructed in Northland the new clause would likely trigger the need for resource consent.	Insert a new clause into Rule C.7.1.3 restricting the frequency of fire training as shown in the document titled *Proposed Regional Plan - S42A Recommendations:*

Provision	Summary of main submission points	Discussion	Recommendation
		Mr Leonard has also requested a new clause requiring '*justification for the burn'.* The need for the clause is unclear. It is also unclear who would receive this information or what role it would have in regulating the activity. I do not support including a new clause requiring '*justification for the burn'.*	
C.7.1.3 and C.7.1.4	Submitters Miru M and Tinopai RMU limited are seeking the following new clause be added to C.7.1.3 Outdoor burning for fire training purposes – permitted activity and C.7.1.4 Outdoor burning for biosecurity purposes *4) the activity does not occur within 40 metres of an Area of Significance*	It is not clear to me how outdoor burning would affect an area of significance to tangata whenua. For that reason, I am unable to support the amendments sought by the submitter. It would be helpful if the submitter provides evidence to support the amendments they are seeking at the hearing.	No change
C.7.1.5 and C.7.1.6	Tegel Foods Limited are seeking amendments that would allow biomass to be burned as a fuel source.	The term 'biomass' describes a wide range of materials and could have an equally wide suite of environmental effects. I have some concern around the potential for some of these materials to cause adverse effects of a scale and nature that are inappropriate for a permitted activity. The submitter may wish to provide more information addressing the potential adverse effects of using biomass as a fuel source and potential conditions to manage the any risks they identify.	No change
C.7.1.6	Tegel Food Limited seeks the deletion of condition 4 which relates to chimney height.	The key reason given in support of deleting the chimney height clause in the Proposed Plan is that '*chimney height is only one factor when considering effects from boiler stacks'.*	No change

Provision	Summary of main submission points	Discussion	Recommendation
		I agree that there are of a number of factors that need to be considered. It is in my view chimney height is an important factor, as such the requirement should be retained.	
C.7.1.6	Miru M is requesting the following new clause be added; *The activity does not occur within 40 metres of an Area of Significance to Tangata Whenua.*	The submitter has not provided information to support the relief they are seeking. It is not clear to me how Areas of Significance to Tangata Whenua will be affected by this activity if they are within 40m. Hopefully the submitter can provide evidence to clarify this at the hearing.	No change
C.7.1.9	Alspach R is seeking changes to allow for burning of *'minor and incidental amount'* of materials listed in the rule.	Mr Alspach submits that the rules should permit burning of some small amounts of material listed in rule C.7.1.9. Many of the materials listed in the rule are subject to the Resource Management (National Environmental Standard for Air Quality) Regulations 2004. As such, Council cannot allow them to be burn as a permitted activity. Other items listed in the rule such as treated timber, MDF or synthetic materials release contaminants when burnt such as dioxins and poly-cyclic hydrocarbons which are detrimental to human and environmental health. I do not support the amendments sought by the submitter.	No change

Provision	Summary of main submission points	Discussion	Recommendation
C.7.1.9	Auckland Council have requested amendments to the activity status of burning certain items listed in the plan. This activity is Non-Complying in the Proposed Plan. Auckland Council are seeking a change to make it a prohibited activity.	I agree with Auckland Council in that burning the items listed in the rule can release contaminants that have potential to effect human health and the environment. In most situations, it is inappropriate to burn these items. In my opinion, a non-complying activity sends this signal. I concede that a prohibited activity would send this signal even clearer. However, I believe instances may arise where an applicant can demonstrate that it is appropriate to burn these items. If this occurs the resource consent process will allow the proposal to be assessed on its merits. If the plan adopts a prohibited activity status for this activity there will be no opportunity to apply. There may be opportunity costs associated with adopting a prohibited status. For example, benefits arising from activities like the high temperature incineration of tyres at Golden Bay Cement could not be realised under Auckland Councils proposal. On-balance my preference is to retain the Non-complying activity status.	No change
C.7.2.1	Transpower are seeking a note under C.7 as follows: *The rules in Section C.7 relating to abrasive blasting, do not apply to* *the discharge of contaminants in relation to an existing National Grid* *line (existing at 14 January 2010) that forms part of the National Grid.* *These activities are covered by Regulations 25, 26 and 27 of the*	The submitter has requested a note be added to C.7.2.1. To avoid notes being included under a number of rules throughout the plan it is proposed to include a section on national regulation at the beginning of the plan. This section will outline how the regulation relates to the rules in the plan and should provide clarity around when national legislation takes precedence over the plan or where plan rules take precedence of national regulation.	Insert a note in a new section on national regulation as shown in in *Proposed Regional Plan - S42A Recommendations:*

Provision	Summary of main submission points	Discussion	Recommendation
	Resource Management (National Environmental Standards for Electricity Transmission Activities).		
C.7.2.2	Insert a new clause requiring a setback from Areas of Significance to Tangata Whenua.	Miru M and Tinopai RMU Limited are seeking that Dry abrasive blasting be setback from Areas of Significance to Tangata Whenua. The submitter has not provided any information to support their position. It is unclear how dry abrasive blasting within an enclosed booth would affect a Site of Significance to Tangata Whenua...	No change
C.7.2.4	Balance Agri-Nutrients Limited and Ravensdown Limited are seeking amendments to rule C.7.2.4 to make mixing fertiliser a permitted activity.	From the evidence provided by the submitters it is unclear whether the effects arising from mixing fertilizer are the same as / or similar to the storage and distribution of fertilizer, in respect to air quality. The submitters may wish to provide more information to clarify this matter. At this time, there is insufficient information to convince me that the amendment is warranted.	No change
C.7.2.4	Northland DHB are seeking the removal of the following industrial activities from the list of permitted activities. • Premises used for the application of surface coatings, including printing or manufacture of packaging materials and the printing of paper, and • Sawmilling, and • Premises used for fumigation for quarantine purposes, and • Quarrying operations. They would become discretionary activities	Northland District Health Board are seeking a number of changes to rule C.7.2.4. Discussion on the relief sought has been broken into topics. Fumigation has been discussed in the main body of this report, above. **Quarrying** The submitter is seeking amendments to make air discharges from quarrying a discretionary activity. The key concern appears to be offsite dust effects. In my mind, the key consideration is if it is likely that the site can be managed in way that avoids noxious, dangerous, offensive or objectionable affects across the property boundary.	No change

Provision	Summary of main submission points	Discussion	Recommendation
		I sought advice from Mr Geoff Heaps, Land Management Consents officer. Mr Heaps has worked for Northland Regional Council for 26 years and has frequently worked with earthworks and quarrying operations throughout Northland over that time. Mr Heaps is of the opinion that it is reasonable to expect that dust be managed within the site to avoid noxious, dangerous, offensive or objectionable affects across the boundary. Mr Heaps also stated that here are a number of measures that are able to be employed to minimise dust effects, and the overburden disposal area. These can include placing aggregate on haul roads and frequently trafficked areas, watering exposed soils in dry periods and applying dust control agents. I give considerable weight to Mr Heaps' professional opinion on this matter and agree that there are a variety measures that can be taken to avoid noxious, dangerous, offensive or objectionable affects across the property boundary. Given that it is possible to manage cross boundary effects of dust I believe that the discharge of dust from quarrying should be a permitted activity. If instances arise where dust is an issue clause 24 of Rule C.7.2.4 allows for an assessment of effects. If the clause cannot be complied with the applicant can seek resource consent or council can take enforcement action. In addition to general comments on dust management Mr Heaps made the following comments in response to the	

Provision	Summary of main submission points	Discussion	Recommendation
		District Health Boards assertion that the effect of dust was not considered for Otaika Quarry is no exception. Effects arising from dust was one of many potential effects outlined in the consent application. Conditions of consent were included in the consent notice, and NDHB is wrong in its assertion that this matter was not considered. Conditions of consent included the general adverse effects condition and rapid revegetation of exposed overburden. The haul road between the quarry and overburden disposal areas is also proposed to be established with a suitable aggregate cover. Measures proposed to control dust include watering of exposed soils in dry conditions, and the application of other dust control agents on non-trafficked areas **Sawmilling** The submitter has requested that amendments be made to make sawmilling be a discretionary activity. I am unable to assess the proposal as the submitter has not provided any evidence to demonstrate that cross boundary effects of dust from sawmilling is an issue or that it cannot be adequately managed under proposed rule C.7.2.4. The submitter may wish to provide further information at the hearing to support their relief. **Application of surface coatings** The submitter has stated that premises for the application of surface coatings including printing and packaging facilities should be discretionary activates. I am unable to assess this proposal because the submitter has not provided any evidence to support their proposal.	

Provision	Summary of main submission points	Discussion	Recommendation
		The submitter may wish to provide further information at the hearing to support their relief.	
C.7.2.4	Leonard B is seeking the deletion of clauses 13 and 18.	The submitter has not provided any evidence that convinces me that clauses 13 or 18 should be deleted. There is insufficient information to support a change to the rule.	No change.
C.7.2.4	Miru M and Tinopai RMU Limited are seeking an additional clause; *the activity does not occur within an Area of Significance*	The effects of the activity are not clear. The submitter may wish to provide more detail. There is insufficient information to support a change to the rule.	No change
C.7.2.4	Promax engineering plastics has stated that rotation moulding of plastics creates similar discharges to some of the activities listed as permitted industrial activities in C.7.2.4. As such they believe that discharges to air arising from rotational moulding plastic should be a permitted activity.	I expect discharges from rotational moulding to be similar to other activities listed in C.7.2.4. The main discharges expected from a process of this nature are PM10 and Volatile Organic Compounds. I was unable to find any research specifically on discharges to air from rotational moulding. I did find a paper that discusses discharges from extrusion moulding which is a comparable process. The Rotational Moulding Association of Australasia confirmed that the processes are comparable but made the distinction that emissions arising from rotational moulding are likely to be higher due to the *high temperature and also the greater exposure to air allowing a greater rate of oxidation during the process*. Information provided by The Rotational Moulding Association of Australasia indicates that rotational moulding in New Zealand is conducted at a relatively small scale and we are unlikely to experience discharges	That rotational moulding be added to the list of permitted activities in C.7.2.4 as shown in in *Proposed Regional Plan - S42A Recommendations:*

Provision	Summary of main submission points	Discussion	Recommendation
		to air that are likely to have a more than minor effect on ambient air quality. As with many of the other listed industries there is potential for cross boundary odour. I recommended that a clause specifying there is to be no offensive or objectionable odour across the property boundary is applied to rotational moulding. A clause of this nature would allow council to respond to odour incidents.	
C.7.2.4	Tegel Foods consider that chicken hatcheries, and feedmill operations (where grain handling and processing occurs), should be provided for as a permitted activity within the rule framework. These operations are typically located in industrial areas and are considered industrial or trade activities.	I suspect that discharges from feed mills and hatcheries are similar to other activities listed in rule C.7.2.4. However, I do not have the information to support the amendment at this time. Further evidence on discharges to air from these activities and the potential effects is required to support the relief sought. The submitter may wish to present further information to support their submission at the hearing.	No change
C.7.2.4	Tegel Foods seek that a note be added to the rule as follows; Note: *Activities identified above are generally expected to be able to comply with Condition 24, and in the event that complaints are made, they will be expected to meet the condition as it would be expected that consent will not be granted for an activity which is not complying with the condition.*	I do not believe a note as sought by the submitter is necessary. As with other permitted activities the activity is expected to comply with the conditions of the permitted activity rule. I believe that is well understood. If the committee are of the opinion that the note should be inserted in the plan I would recommend the following amendments, as there are instances where consent may be granted when there are offensive or objectionable effects across the boundary. Note: *Activities identified above are generally expected to be able to comply with Condition 24, and in the event that*	No change

Provision	Summary of main submission points	Discussion	Recommendation
		complaints are made, they will be expected to meet the condition ~~*as it would be expected that consent will not be granted for an activity which is not complying with the condition.*~~	
C.7.2.6	Miru M and Tinopai RMU Limited are seeking a new clause requiring a setback from Areas of Significance to tangata whenua.	The submitter has not provided any information to support their position. It is unclear how dry abrasive blasting within an enclosed booth would affect a Site of Significance to tangata whenua.	No change
C.7.2.6	Egg Producers of New Zealand are seeking further guidance be inserted what constitutes offensive or objectionable odour and dust and how operators are required to demonstrate that activities will not result in offensive or objectionable odour	The Ministry for the Environment has a suite of guidance documents discussing the assessment and management of odour and dust. Including discussion around offensive or objectionable effects. While the Ministry for the Environments guidance is very helpful I accept that some guidance around what offensive or objectionable means in the context of the plan could be useful. I recommend that guidance be inserted into an appendix of the plan.	Insert a new appendix containing guidance on offensive or objectionable air discharges as shown in in *Proposed Regional Plan - S42A Recommendations:*
C.7.2.6	New Zealand Transport Agency (NZTA) seek consequential amendments as a result of changes to dry abrasive blasting rules.	I support the relief sought by NZTA and recommend that the committee adopt it.	Add the following words to C.7.2.6 except as provided for by rule XX
C.7.2.7	Egg Producers of New Zealand are seeking matters *of assessment* be inserted into the Proposed Plan.	One of the decisions that council made in terms of the format and content of the plan was that the plan would not include matters of assessment in any rules. Inserting matters of assessment into rule C.7.2.7 would be inconsistent with the rest of the plan. I do not support this point of relief.	No change
C.7.2.7	Tegel Foods Ltd are seeking amendments to the rule to recognise that there are rules in other sections of the plan that permit	This submission point appears to be seeking consequential changes to reflect other relief sought by Tegel Foods.	Amend C.7.2.7 as shown in C.7.2.7 of the in *Proposed Regional*

Provision	Summary of main submission points	Discussion	Recommendation
	discharges to air and that those sections are not currently recognised by this catch all rule.	The Proposed Plan includes permitted activity rules for discharges to air throughout the plan. This rule is intended to capture any activities that are not covered by other rules in the plan. While I don't support including new rules for poultry farming as sought by the submitter, if the committee believes new rules are required they could be inserted without making consequential amendments to Rule C.7.2.7, as sought by Tegel Foods in this submission point. The submitter has also suggested some minor grammatical changes. These are sensible and I recommend these changes are adopted.	*Plan - S42A Recommendations:*
New Policies	Fonterra are requesting amendments of D.3 Air Policies to include range of new policies on managing air discharges. New policies include: **General air policies:** 1. A policy that seeks to maintain ambient air quality across the Northland region 2. A policy that seeks to manage localised air quality effects, including from burning, dust and odour and spray generation **Specific air policies:** 3. A policy requiring activities with air discharges to improve air quality over time 4. A policy requiring air discharges from industrial and trade premises to adopt the best practicable option to prevent or minimise actual or potential adverse effects on the environment 5. A policy enabling discharges from industrial and trade premises, provided that significant adverse effects are avoided	The submitter is seeking a number of new policies. I support some of the suggested policies, i believe that some of the polices are already included in the Proposed Plan and there are other aspects of the submission where I need more information to support or oppose other the relief sought. The point numbers referred to below relate to the numbers assigned to the points of relief in the column to the left. I support point 6) which seeks to avoid discharges of *offensive or objectionable* effects across the boundary. I have drafted a new clause in Policy D.3.1 (General approach to managing air quality) for the committee's consideration. I believe condition 1 of policy D.3.1 goes a long way to achieving the relief sought in respect to point 4. Based on the evidence I have seen to date I do not believe	Insert a new clause on *offensive and objectionable effects* into Policy D.3.1 as shown in *Proposed Regional Plan - S42A Recommendations:*

Provision	Summary of main submission points	Discussion	Recommendation
	6. A policy that seeks to avoid discharges to air that are assessed as causing offensive or objectionable effects, in accordance with the FIDOL criteria 7. A policy that seeks to manage localised air quality effects, including by regulating burning, dust and odour generating activities and spray generating activities	additional policies promoting the" best practicable option" are required. I believe points 1, 2 and 3 may have merit but it is difficult to fully assess their merits without specific wording. I do not support point 5 at this time but it but it is difficult to assess its merits without specific wording. The submitter may wish to provide specific wording for the policies they are seeking, if they present at the hearing. However, I am mindful that evidence presented at a hearing cannot expand the scope of a request made in an original submission. In other words, the absence of details of any actual amendments sought to the Plan (the specification of specific relief is required by RMA Schedule 1, subclause 6(3) and Form 5 prescribed in the Resource Management (Forms Fees and Procedure) Regulations 2003)) may mean that the Panel has no option but to reject these submissions.	
Policy D.3.1	GBC Winstone has requested changes so that the references accurately reflect the titles of the documents on MfE's website.	The suggested amendments are sensible. The current reference is in-accurate and should be amended.	Amend Policy D.3.1 as shown in D.3.1 *of the Proposed Regional Plan - S42A Recommendations:*
Policy D.3.1	GBC Winstone are seeking the deletion of clause 6 which relates to natural character.	Policy 13 (2) of the NZCPS sets out factors that influence natural character includes experiential factors such as smell. With that in mind I believe it is fair to say that discharges to air can affect natural character and therefore natural	No change

Provision	Summary of main submission points	Discussion	Recommendation
		character is a relevant consideration and should be included in the policy. Policy 13 of the NZCPS directs the preservation of natural character. The inclusion of D.3.1 (6) is one way the plan gives effect to this policy.	
Policy D.3.1	GBC Winstone are seeking the following additional clause: *recognise the long term economic and social benefits of industrial activities.*	I agree with the intent of the submission point. While the policies are not focused on industrial activities I believe the relief sought is achieved through the following policies shown in Proposed Regional Plan - S42A Recommendations; • *D.2.2 Social, cultural and economic benefits of activities* • *D.2.4 Resource consent duration.*	Amend Policy D.3.1 as shown in D.3.1 of *the Proposed Regional Plan - S42A Recommendations:*
Policy D.3.1	Horticulture New Zealand are seeking the following amendments to clause 4: *take into account the New Zealand Ambient Air Quality Guidelines 2002 when assessing the effects of the Discharge on ambient air quality,* *And*	The amendment removes potential uncertainty. I recommend the relief sought is adopted.	Amend Policy D.3.1 as shown in D.3.1 of *the Proposed Regional Plan - S42A Recommendations:*
Policy D.3.1	Horticulture NZ are seeking the following additions to clause 7; *including existing amenity values and potential for reverse sensitivity effects*	Discussions with the submitter indicated that the main effect the changes are seeking to manage are cross-boundary effects rather than reverse sensitivity effects. I agree that the policy should provide direction on how cross-boundary effects should be considered. The proposed policy does do this to a certain extent through clauses 5 and 7. I believe the policy could be strengthened in this respect and recommend that clause	Amend Policy D.3.1 to explicitly require the consideration of cross-boundary effects as shown in the document *titled Proposed Regional Plan - S42A Recommendations:*

Provision	Summary of main submission points	Discussion	Recommendation
		7 be amended to explicitly include cross-boundary effects.	
Policy D.3.1	Ravensdown request that the following words be added to clause 9; *and any subsequent update or revision of these national guidance documents.*	Good practice dictates that permitted activity rules should specify a version when rules refer to a document outside a plan. This principle does not apply to policies. Adopting the relief sought by the submitter will allow consents to be guided by the latest best practice and stay up to date. I believe the intent of the submitters relief can be achieved by simply deleting the date at the end of each document title.	Amend Policy D.3.1 as shown in D.3.1 of the *Proposed Regional Plan - S42A Recommendations:*
Policy D.3.1	Balance Agri-Nutrients Limited and Refining NZ seek the deletion of clause 8. Refining New Zealand are seeking amendments to recognise the current and future operation of regionally significant infrastructure.	I recommend that clause 8 is deleted as sought by the submitter and that consent duration is addressed in policy D.2.4 ("Resource consent duration"). In respect to the relief sought by Refining New Zealand - the reason for including these additional words are unclear. I could support including words that direct decision makers to consider the effects new discharges to air would have on current operation of Regionally Significant infrastructure. However, the submitter appears to be seeking amendments requiring decision makers to speculate on future operation of Regionally Significant Infrastructure. I believe this inappropriate and inconsistent with the first in, first served regime for allocating common resources set out in the RMA.	Amend Policy D.3.1 as shown in D.3.1 of the *Proposed Regional Plan - S42A Recommendations:*
Policy D.3.1	Egg Producers Federation New Zealand are seeking amendments to refer to air quality	The submitter raised two main points in opposition to proposed Policy D.3.1.	Amend Policy D.3.1 as shown in D.3.1 of the in *Proposed Regional*

Provision	Summary of main submission points	Discussion	Recommendation
	assessment rather than prescribing air dispersion modelling. The submitter has also requested that the plan include clear guidance regarding whether the effects of an air discharge are likely to be significant on the surrounding environment.	Firstly, that air quality assessment may be preferable wording to air dispersion modelling in clause D.3.1 (3). The relief sought is to delete reference to air dispersion modelling form the Policy. I believe it is appropriate to signal that air dispersion modelling should be considered. The policy uses the word 'consider'. Air dispersion modelling is not mandatory. It may not be the most appropriate assessment tool for all situations. MfE's Good Practice Guides discuss situations where air dispersion modelling is not appropriate. The policy does not restrict applicants from using other assessment tools. I think it is appropriate to signal that dispersion modelling is an option, particularly where the effects are likely to be significant. Some amendments can be made to improve the clarity within the policy i.e. change 'surrounding environment' to 'sensitive areas' – which are defined The second point raised is that clear guidance is required around when effects on the surrounding environment are considered to be significant. MfE's good practice guides provide this guidance. They are referred to in the policy.	*Plan - S42A Recommendations:*
Policy D.3.1	Tegel Foods Ltd are seeking the deletion of Clause 2) and add the following new clause: *9) recognise the need for the security of supply of energy in the region, which may include non-renewable sources.*	I am open to the idea of moving the security of supply clause from D.3.2 to D.3.1 however, it is not clear why the submitter wants the amendment. Tegel Foods may wish to provide more information if they attend the hearing.	No change

Provision	Summary of main submission points	Discussion	Recommendation
New policy	Te Kopu Pacific have requested a new policy as follows; *Tangata whenua Relationship with Ancestral resources the air resource should be managed in a way that recognises and provides for the relationship of tangata whenua and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.*	I do not believe this policy is necessary or adds value to the existing policy framework. The Proposed Regional Plan contains directive policies (D.1) requiring effects assessment on tangata whenua values and places of significance to tangata whenua. The proposed policy repeats what is a matter of national importance in S6e of the RMA (the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga).	No change
New policy	Te Kopu Pacific have requested a new policy as follows; *PM10 Air Quality Targets* *a) Northland's ambient air quality will be managed in accordance with the MfE National Air Quality Guidelines…* *b) Threshold concentration of will not exceed 50 micrograms per cubic metre expressed as a 24□hour mean, not more than 1 exceedance in a 12-month period… (NES) From dust on metal roads* *c) Consistent with the NES, Regional council must monitor air quality if standard breached.* *i. Monitor the airshed in relation to that contaminant; and* *ii. Conduct the monitoring* *1. In that part of the airshed where* *a. There are one or more people; and*	The proposed wording mirrors wording contained in the Resource Management (National Environmental Standards for Air Quality) Regulations 2004. This is already a mandatory requirement of regional councils.	No change

Provision	Summary of main submission points	Discussion	Recommendation
	b. The standard is breached by the greatest margin or the standard is breached the most frequently, whichever is the most likely; and *iii. In accordance with the relevant method listed in Schedule 2* *d) Regional council must give public notice if standard breached* *a. A regional council must give public notice if the ambient air quality standard for a contaminant is breached in an airshed in its region* *b. The notice must* *i. Be given periodically, at least once a month, until the standard is no longer being breached,* *ii. Be given in accordance with the Act; and* *iii. Include* *1. The name of the contaminant to which the notice relates, and* *2. The time and place at which the standard was breached, and* *3. The extent to which the standard was breached.*		
Policy D.3.2	Auckland Council seek an amendment to explicitly recognise the impact on human health and the environment from outdoor burning of toxic compounds and materials.	Auckland Council have identified a gap in the Air policies in respect to human health. I recommend inserting an additional clause into D.3.1 to address this matter.	Amend policy D.3.1 as shown in in D.3.1 of the in *Proposed Regional Plan - S42A Recommendations:*
Policy D.3.3	First Gas Limited are seeking that a note be added to the policy excluding gas pipelines and ancillary equipment from the policy.	It is not immediately apparent to me why an odour management plan would not be beneficial for routine discharges of gas undertaken by First Gas Limited or why these activities should be excluded from the policy.	No change

Provision	Summary of main submission points	Discussion	Recommendation
	The Gas (Safety and Measurement) Regulations 2010 require operators to add an odorant to gas to it can be detected. The policy, as proposed would require First Gas Ltd to prepare an odour management plan for routine discharges of gas.	The submitter may wish to provide more information on this matter if they present at the hearing.	
Policy D.3.4	Horticulture New Zealand have requested the following amendments to clause 2(e); details of good management practice that will be used to ~~control spray~~ manage the risk of spray drift to the extent that. . . .	The amendments sought are within the scope of what council is trying to achieve. They are, in my view, more accurate and should be adopted.	Amend policy D.3.4 as shown in in D.3.4 of the in *Proposed Regional Plan - S42A Recommendations:*
Policy D.3.4	Leonard B is seeking that policy D.3.4 be deleted.	The submitter has not provided any evidence that convinces me that the policy should be deleted.	No change
Policy D.3.4	The Minister of Conservation seeks the following addition; *The activity is for significant environmental and biodiversity protection.*	Spraying to improve biodiversity is one of the activities envisaged to be a *significant public benefit*. Rather than including a new point I recommend adding a footnote to clause 1 a) making it clear that spraying for significant environmental and biodiversity protection is covered by the existing clause.	Amend policy D.3.4 as shown in in D.3.4 of the in *Proposed Regional Plan - S42A Recommendations:*
Policy D.3.4	Ravensdown Limited are seeking; *a) Defining the term 'spray generating activities' that specifically excludes the aerial application of fertiliser; or* *b) Specifically excluding the aerial application of fertiliser from the policy; and* *c) Include the requirement for a 'spray management plan' as a condition of a rule.*	Including a definition The term spray generating activities intentionally encompasses a variety of activities. While I feel the term is fairly self-explanatory I am open to including a definition and am interested to see if the submitter presents a definition in their hearing evidence. Excluding fertilizer application In most instances spraying fertilizer is a permitted activity under the Proposed Plan. It is possible that spraying fertilizer could need resource consent if the activity cannot meet the conditions of C.6.9.3 and C.7.2.6. In	No change

Provision	Summary of main submission points	Discussion	Recommendation
		these instances, I believe it is appropriate for fertilizer spraying to consistent with policy D.3.4. to direct the management of cross-boundary effects. Spraying fertilizer should be included within the scope of this policy. <u>Spray management plans</u> This component of the relief is discussed in the discharges to land "other discharges" s42 A report.	
Policy D.3.5	Refining New Zealand are seeking amendments to focus on the objectives of the Marsden Point Air Quality Strategy and to recognise that there have been changes within the air shed since the strategy was developed.	It is unclear why the submitter wants to focus on the objectives rather that the whole strategy. I agree that the Marsden Point area has changed since the strategy was developed in 2010. The policy directs decision makers to take the strategy into account. I believe that this is sufficiently flexible to allow decision makers to disregard aspects of the strategy that are out of date. Adding a note or words to the policy explaining the strategy is out of date will result in a policy that is out of date when the strategy is reviewed. As I understand it, the strategy is due to be reviewed although a time to begin the review has not be scheduled.	No change
New Policy	Refining New Zealand are seeking a new policy as follows: <u>*Protection of Regionally Significant Infrastructure in the Marsden Point Airshed;*</u> <u>*1) Resource consent applications for discharges to air that are located within the*</u>	To date, there have been no exceedances of PM10 or Sulfur Dioxide with the Marsden Point Airshed. As such there is no compelling evidence that the risk the proposed policy is trying to manage, rather it appears to pre-empt a perceived risk. In my view, the perceived risk is low. There is a mechanism within the NES Air Quality that requires council to decline resource consent applications that	No change

Provision	Summary of main submission points	Discussion	Recommendation
	Marsden Point airshed shall only be approved where; *a) There are no adverse effects from the proposed activity on Regionally Significant Infrastructure (including their operation, any consented but unimplemented development and any development that can occur as a permitted activity), and* *2) Dust or odour sensitive activities shall not be located in close proximity* *to, nor impede, the current and future operation of sites of Regionally Significant Infrastructure.*	would result in an exceedance of the thresholds in the NES. Therefore, the risk from consented activities is low. There is potential for discharges from industrial activities establishing within the air shed to discharge as a permitted activity. The advice I have received to date is that these discharges are unlikely to cause a breach of the NES Air Quality. With that said, if the submitter demonstrates there is a need for this type of policy I am open to including one. Clause 2 of the policy appears to be contingent on land use planning which is a district council function. For that reason, I do not recommend it be included.	

Appendix B – Advice on chimney height requirements

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2 May 2018

Attention: Michael Payne
Northland Regional Council
Whangarei

Subject: Advice on submissions relating to chimney height requirement for the NRP

Dear Michael

The NRC has requested that Jacobs New Zealand Limited (Jacobs) provides advice for the Council to assist it in developing recommendations on submissions received on the *New Regional Plan for Northland* (NRP). Two of the submissions requested that the NRC replaces the proposed chimney height requirements with a simpler set of standards similar to those used by Environment Canterbury and Nelson City Council.

The chimney height requirements in the NRP are based on calculating the mass emission rate of SO_2 or NOx depending on the fuel consumption rate. And then using a series of nomographs to determine chimney height, with a correction provided for buildings.

1. Submissions

The submissions received on the chimney height provisions were from Fonterra and the Bioenergy Association. The submissions details are set out below:

1.1 Fonterra

Fonterra opposes in part C.7.1.6 Burning for energy generation more than 40 kW – permitted activity Appendix H.3 Chimney Height Requirements. Fonterra generally supports the permitted activity rule for discharges of contaminants to air for energy generation. However, Fonterra has concerns about criterion (4) of Rule C.7.1.6 which requires the chimney height to be calculated in accordance with Appendix H.3.The calculation method proposed in Appendix H.3 is overly complex. Fonterra request that a simpler table is used, such as that contained in the Canterbury Air Regional Plan (see page 8-17 of the Canterbury Air Regional Plan).

The relief sought by Fonterra is that Delete Appendix H.3 and replace with a simpler tabular format such as that contained in the Canterbury Air Regional Plan.

1.2 Bioenergy Association

The Bioenergy Association notes that the bulk of what is in the rules for the calculation of chimney height is based on chimneys for coal burning appliances. For the most part focusing on SO_2 concentrations and emissions. Point 13 states that for liquid or solid fuels including untreated wood, a minimum SO_2 content of 0.5% should be assumed. Looking at the examples some aspects appear unnecessary and are going to result in some very high chimneys indeed. It is a very different approach to other regions such as Nelson and Canterbury for the same

thing. It will result in crazy chimneys for natural gas burning equipment. Bioenergy Association would like to see a more common approach across all regions.

2. Scope

The specific questions arising out of these submissions that NRC has sought advice on are:

1. Provide comment on the suitability of Appendix H.3 Chimney Height Requirements of the Proposed Regional Plan, including.
    a. Are the standards out of date?
    b. Is the focus on SO_2 appropriate?
    c. Any other relevant points

2. Provide an opinion on the suitability of ECAN's and Nelson's approaches for use in Northland

3. Are these more user friendly than NRC's Appendix H.3?

3. Discussion

3.1 Northland

The NRP Appendix H.3 for chimney heights is applicable to permitted activity discharges from the operation of fuel burning equipment covered by C.7.1.6 'Burning for energy (electricity and heat) generation more than 40 kW.

The thresholds in the rule set for the various fuel types that apply to the permitted activities within the NRP are:

a) coal and oil (but not waste oil) up to 5 MW

b) natural gas, biogas and liquid petroleum gas up to 10 MW

c) untreated wood burning up to 2.5 MW

The NRP rules include a minimum efflux velocity and a concentration limit for particulate matter.

The NRP method for deriving chimney height is based on a calculation of the flue gases mass emission rate, that is then used to infer a stack height from a series of charts (nomographs). Appendix H3 states that the chimney height from the nomographs has been calculated to ensure dispersion of the gases to achieve a theoretical maximum ground level concentration of 400 milligrams per cubic metre (mg/m^3) of sulphur dioxide with no averaging period stated. We assume that the use of mg/m^3 is a typographical error and the correct units are intended to be micrograms per cubic metre ($\mu g/m^3$) consistent with ambient air criteria. Because the averaging period is unstated the relevance of the criteria compared to current guidelines and standards is unclear.

Appendix H.3 requires that that the minimum sulphur content of any fuel used in the calculations be 0.5 percent or greater as applicable. Oxides of nitrogen (NOx) are to be substituted for SO_2 to derive the chimney height in the case of natural gas combustion.

The nomographs use a 2-stage calculation of chimney height, first the uncorrected height and then corrected height to account for the influence of buildings. The proposed stack height approach in H3 of the proposed NRP is based on the old British Memorandum for stack heights, published in 1956.

3.2 Canterbury

ECAN stack heights for permitted activities are set in Schedule 5. The stack height requirements apply to large scale activities defined as greater than 40 kW, which are permitted for:

- Gas up to 5 MW
- Diesel up to 2 MW; and
- Solid fuel up to 1 MW

For solid fuel a permitted activity standard of 1% sulphur has been specified, no differentiation is made for wood combustion as compared with coal. But a scale of activity with different stack heights is provided up to the permitted activity threshold level. No permitted activity rule (or stack heights) are set for fuel oils. There is no explanation in the plan as to the basis upon which the stack height levels have been set.

There is nothing in the S32 report or other technical reports that were available on-line to support the stack height requirements that were adopted in the Plan.

3.3 Nelson

The Nelson Plan provides a series of appendices for stack height requirements relating to appliances of different scale and or fuel type.

Those appendices applicable to large-scale fuel burning appliances ie those having a net heat or energy output of more than 70 kilowatts for any gaseous or liquefied gaseous fuel, or greater than 40 kilowatts for any other fuel are AQ5 and AQ6. The Plan states that information and dispersion modelling to support the classification of activities in these rule (and presumably the chimney height requirements) is contained in NIWA report ALK2002-037-R1, August 2004, available from Nelson City Council. I have requested this report from Nelson Council.

AQ 5 covers:

- LPG up to 4 MW
- Kerosene up to 2 MW with a limit of 0.2% S
- diesel up to 5 MW
- wood pellets up to 220 kW

Nelson essentially has one fixed stack height for all of the above activities fuels of 12.5 m above ground level (where unaffected by buildings).

AQ6 covers stationary internal combustion appliances burning gas, LPG, petrol, diesel, vegetable oils or alcohol, up to 400 kW.

Combustion of light fuel oil, heavy fuel oil, coal and wood is not a permitted activity and thereby no chimney height requirement are provided in the Nelson Plan.

4. Initial findings

Jacobs has been limited by the available budget provided by NRC and we are unable to provide a detailed assessment of the NRP approach or a detailed analysis of the appropriateness of the suggested alternative approaches used by Nelson and Canterbury. We provide below comments based on our review of the respective plan provisions.

1. Provide comment on the suitability of Appendix H.3 Chimney Height Requirements of the Proposed Regional Plan, including.

    a. Are the standards out of date?

The nomograph approach does contain elements that are likely to be out of date. The version in the NRP is understood to have been developed in New Zealand based on the UK Chimney Heights Memorandum originally developed in 1956. The New Zealand version was developed for use under the New Zealand Clean Air Act. The basis on which the nomographs were developed is unclear ie. the relationship to air quality standards and expected ground level concentrations is not known. In any case ambient air quality guidelines and standards will have changed since the nomographs were developed.

Sulphur dioxide has generally reduced as an environmental pollutant overtime due to reduced sulphur in fuels, including petrol and diesel, while oxides of nitrogen have tended to increase due to growth in vehicle traffic. The way that background air quality is taken into account within the nomographs is therefore likely to be flawed (ie. categories A to E), for example, background SO_2 will be very low in all district types unless there is a specific industrial source.

    b. Is the focus on SO_2 appropriate?

Using SO_2 to infer a stack height is likely appropriate for coal and fuel oil but this depends on the sulphur content ie if a low sulphur version of the fuel is used sulphur dioxide may not be the main driver of stack height. Previous use of the nomograph approach has incorporated a SO_2 to NO_2 ratio that was used to determine if the mass emission rate of SO_2 or NO_2 should be applied to determine the stack height.

Using SO_2 for wood fuels is not appropriate because wood contains negligible amounts of sulphur. The assumption of a minimum sulphur content as the basis for design of 0.5% for wood is inappropriate[1].

Diesel is not mentioned in the rule but a default of 0.5% S would also be too high for fuel grade diesel[2].

    c. Any other relevant points

The original nomographs had a scale for both SO_2 and NO_2 mass emission rates. It is unclear why the NRP dispensed with the two scales. NO_x as NO_2 mass emission is used for gas and LPG but the SO_2 scale of the nomograph is used. The original nomographs resulted in a higher stack for NO_x as NO_2 for the equivalent rate of emission for SO_2. Which makes sense when considering that the 1-hour NO_2 air quality standard is lower than the 1 hour SO_2 standard.

The nomographs provide variable chimney heights based on the mass emission of the contaminant (SO_2 or NO_x) over a wide range of mass emission rates. This has advantages over the limited range of activity scales covered by the Nelson and Canterbury approaches. To cover the equivalent range of scenarios as covered by the nomographs, a significantly larger table than that provided by the Canterbury Plan would be required.

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[1] Wood has practically no sulphur at all, as its share in wood is 0,05% at the highest - http://www.woodenergy.ie/woodasafuel/generalaspectsofwoodasafuel/

[2] diesel is now 50 ppm which is much lower than 0.5% 5,000 ppm

JACOBS

2 May 2018
Subject: Advice on submissions relating to chimney height requirement for the NRP

2. Provide an opinion on the suitability of ECAN's and Nelsons approached for use in Northland

   The following table compares the upper permitted activity threshold for the various plans.

Table 4.1 : **Regional Plan permitted activity thresholds for combustion rules (MW)**

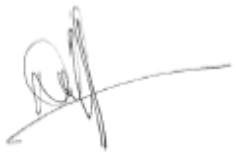
	Northland	Nelson	Canterbury
Coal	5	Not permitted	1
Wood	2.5	Not permitted	1
Gas/LPG	10	4	5
Kerosene	-	2	-
Diesel	-	5	2
Oil	5	Not permitted	Not permitted

Because of the way the rules are structured, using different thresholds for different fuels between the plans, neither the Nelson or Canterbury approach can be directly applied in the NRP.

3. Are these more user friendly than NRC's Appendix H.3

   The tabular approach as in the Canterbury plan, and the Appendices AQ5 and AQ6 are easier to follow than the NRP approach, but both are limited in scope in terms of the fuels and scale of activity that are covered by the NRP. Further work would be needed to develop tables that could be applied to NRP combustion activity rule framework.

Yours sincerely



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