

21 July 2017



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Tēnā koe,

Environment Canterbury submission: Government Inquiry into Havelock North Drinking Water

Thank you for the opportunity to submit on the issues identified in Stage Two of the Inquiry into Havelock North Drinking Water. Environment Canterbury's submission is attached.

Environment Canterbury has provided this submission in relation to its roles, functions and responsibilities affecting drinking water supply to assist the Inquiry. Environment Canterbury is also working closely with others as part of the Canterbury Drinking Water Reference Group and supports that group's submission. We would be happy to engage further with the Board of Inquiry to address matters identified in the submissions and to help develop solutions.

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Nāhaku noa, nā

Steve Lowndes
Acting Chairman

Encl: *Environment Canterbury Submission to the Government Inquiry into Havelock North Drinking Water Stage Two*

SUBMISSION to the INQUIRY PANEL for the GOVERNMENT INQUIRY into HAVELOCK NORTH DRINKING WATER by ENVIRONMENT CANTERBURY - STAGE TWO

INTRODUCTION

1. Environment Canterbury thanks the Inquiry Panel for the opportunity to submit on the issues identified as part of Stage Two in the Government Inquiry into Havelock North Drinking Water.
2. The following submission is made in order to give Environment Canterbury's perspective on the Stage Two issues in relation to its roles, functions and responsibilities affecting drinking water supply.

CONTEXT

3. Environment Canterbury is the regional council for the largest geographical region in New Zealand. Canterbury has an estimated 586,500 residents (at 30 June 2015), or 13% of the national population, making it the second most populated region in New Zealand after Auckland.
4. The consenting of drinking water, both through surface and groundwater takes, forms an important aspect of Environment Canterbury's role in relation to the provision of drinking water.
5. In accordance with its functions, Environment Canterbury also monitors and tests the quality of water at source in/on the ground to further understand the region's water and enforces consent compliance for those activities that may impact on water quality. Environment Canterbury also regulates activities that may have an impact on water quality and must comply with the National Environmental Standards for Sources of Human Drinking Water 2007 (NES).
6. Further, Environment Canterbury's planning policies and rules restrict activities in areas where drinking water is directly extracted or is recharging through the identification of protection zones. These source protection zones are addressed further below in the context of some of the specific issues identified by the Inquiry in its Stage Two investigation.
7. Environment Canterbury works in close collaboration with the 10 territorial authorities and two District Health Boards in the Canterbury region, given the interrelated functions of each entity in relation to drinking water.
8. In response to the Havelock North campylobacter incident, the Canterbury Drinking Water Reference Group (**CDWRG** or **Group**) was formed through the Canterbury Mayoral Forum. The Group first met in October 2016. The Group draws together key staff from district and city councils concerned with drinking water supply, the Canterbury and South Canterbury District Health Boards and Environment Canterbury. The Group has lodged a separate submission on Stage Two of the Inquiry to the extent that the members of the Group have the same views on the issues. There were differing views on some issues but significant common purpose exists and is best evidenced by the progress the Group is making.
9. This submission outlines Environment Canterbury's specific comments on the issues raised by the Inquiry.
10. In particular, Environment Canterbury comments on issues 8, 9, and 10 which specifically relate to regional council consenting and the NES as the issues of greatest relevance to its functions in relation to drinking water in the Canterbury

region. The submission also makes some high level comments on issue 7 (water supply entities) and issue 22 (emergency response plans).

11. The submission focuses on issues associated with drinking water quality, rather than allocation of drinking water, as these issues are most pertinent when considering the protection of public health.

SUMMARY OF SUBMISSION

12. The current division of responsibility between the various agencies responsible for drinking water provides important checks and balances in the system. Environment Canterbury does not consider that creating dedicated water supply entities would provide a solution for better managing the risks associated with drinking water supply. However, Environment Canterbury acknowledges that better collaboration and co-operation between the existing entities is needed to ensure that incidents like the Havelock North outbreak do not occur in the future. This was part of the impetus for forming the CDWRG in the Canterbury region.
13. While Environment Canterbury considers that the NES is the right vehicle for outlining regional council responsibility for drinking water, there are some issues with its scope and content, and also its implementation that need to be addressed.
14. Environment Canterbury supports the introduction of spatially mapped source protection zones through the NES in order to address some of the current uncertainties and complexities associated with applying the NES in practice. It also considers that its scope needs to be reviewed in relation to what water supplies it applies to and also how land uses that have the potential to impact on drinking water supplies are managed, by both regional councils and territorial authorities.
15. One of the key challenges from Environment Canterbury's perspective relates to how better collaboration and integration between the various stakeholders can be achieved. Environment Canterbury considers that formalising arrangements such as the CDWRG might be one way of achieving this.
16. Overall, Environment Canterbury recognises the clear need to ensure drinking water is protected. It considers that changes to the existing tools and framework (including by extending the scope of the NES and addressing its interaction with the Health Act 1956) can be made which will deliver benefits to the community without incurring the costs and complexities associated with mandating dedicated water supply entities.
17. Environment Canterbury's detailed submission on these issues is set out as follows.

ISSUE 7 – SHOULD THERE BE DEDICATED WATER SUPPLY ENTITIES?

18. Issue 7 identifies the potential for there to be dedicated drinking water supply entities and asks for arguments in favour of, or against, a dedicated supply entity. While Environment Canterbury is aware of the use of dedicated water supply entities, both in New Zealand and overseas, it does not consider that mandating such entities will have the effect of reducing the risks of similar contamination incidents occurring.
19. Environment Canterbury considers that the creation of a further entity could result in implementation and integration issues between those entities with different responsibilities in relation to the provision of drinking water without addressing the issues currently faced by drinking water suppliers.
20. For example, it is unclear how the creation of further entities responsible for drinking water could address the current funding issues faced by drinking water suppliers.

21. In addition, the creation of another entity, responsible for drinking water supply, could further complicate the ability of councils to plan long term to ensure the quality of drinking water supplies are protected. One of the key issues associated with ensuring drinking water quality is protected relates to land use planning for activities occurring near to drinking water supply sources that have the potential to cause contamination. It is difficult to see how the mandatory creation of dedicated drinking water suppliers would address this issue (and if anything could exacerbate the implementation and integration issues by creating another agency).
22. If dedicated water supply entities are to be created, then Environment Canterbury strongly considers that the role of such entities would have to be limited to the supply functions currently held by drinking water suppliers, rather than incorporating wider planning and consenting functions of both regional councils and territorial authorities under the RMA.
23. If new dedicated water supply entities were created and given wider functions under the RMA, it would remove the current multi-agency approach and the accountability that this approach creates. It could also further fragment the approach taking to planning under the RMA, by both territorial authorities and regional councils. Environment Canterbury is highly concerned that the mechanisms under the current system would be removed if there were to be dedicated water supply entities and that the role of regional councils in relation to water would be significantly altered, resulting in an increase in costs.
24. For example if dedicated water supply entities were introduced and subsumed regional council functions in relation to the allocation of water for drinking water, and also water quality issues, it could fragment the current approach taken to the management of water. One of the advantages of the current regulatory approach to water more generally, is that the issues are considered in an integrated manner, with issues affecting drinking water being considered alongside other allocation and water quality issues for other supplies (for example water supply for hydroelectricity generation, recreation and irrigation).
25. It is also unclear whether the costs of introducing new dedicated water supply entities would deliver any benefits in terms of the provision of drinking water, beyond those benefits that could be achieved by making the improvements to the NES and regulatory framework and its implementation already under consideration by the Inquiry.
26. If dedicated water supply entities are to be created, it is Environment Canterbury's strong view that all functions and responsibilities in relation to drinking water should not be subsumed by one entity for the reasons described above. However, Environment Canterbury also recognises that better integration and collaboration between the existing entities is required. As the submission below outlines, there is a need to strengthen and enhance the tools already in existence.

ISSUE 8 – NES REGULATIONS

a) Does the nature and extent of regional councils' responsibility for drinking water need to be reviewed/extended?

27. Generally speaking, Environment Canterbury considers that the nature and extent of regional council responsibility for drinking water is appropriate and should not be extended or amended.
28. Regional council responsibility for drinking water reflects the functions of regional councils under the RMA. Environment Canterbury does not support the extension of regional council responsibilities for the same reasons that it does not support

dedicated water supply entities. If regional council functions in relation to drinking water were to be extended (for example, so that regional councils became the suppliers of drinking water) it would have the potential to remove an important check and balance in the process between the existing regional council functions and the territorial authority and water supplier functions.

b) If so, are the NES Regulations the appropriate vehicle for achieving that

29. At a broad level Environment Canterbury considers that the NES is the appropriate vehicle for outlining regional council responsibilities in relation to drinking water. However, Environment Canterbury considers that a range of improvements could be made to both the NES itself and also its implementation by regional councils.
30. As discussed further below, the scope of the NES needs to be extended in some instances and it requires further clarity. This will help ensure the respective responsibilities of regional councils, territorial authorities and District Health Boards are clear to all stakeholders and ensure greater protection of drinking water for the public.
31. For example, the NES could provide further clarity by specifically outlining territorial authority/supplier responsibilities in relation to drinking water. Environment Canterbury considers that one of the challenges in relation to the provision of drinking water is the lack of integration between regional council responsibilities under the NES, and the responsibilities of suppliers and District Health Boards under other legislation such as the Health Act. Extending the scope of the NES or creating new legislation that set out the responsibilities, functions and powers of each agency in relation to drinking water could help simplify the regulatory framework and also consequently improve the implementation by the various agencies.
32. While it is outside the scope of this submission to comment on all possible options for improving the NES or other legislative change, Environment Canterbury would welcome consultation on revisions to the NES and/or legislative change and a real engagement process to enable all affected parties to comment on changes. As is highlighted below, an issue with the current NES in practice is the cost that it places on consent applicants undertaking activities that might affect existing drinking water supplies. It will be important that this perspective is given consideration when considering any changes to the regulatory framework applying to drinking water.

c) Issues arising out of the application of the NES in practice; have the NES Regulations served their intended purpose

33. Environment Canterbury considers that the NES Regulations have gone a considerable way to serving their intended purpose, although there are some issues with both the scope of the Regulations and also their implementation. Environment Canterbury welcomes the Inquiry as providing an opportunity to ensure that the NES is fit for purpose.
34. Prior to the introduction of the NES, the potential effects on drinking water supply associated with surrounding activities was considered on an ad hoc basis and relied on regional councils having robust planning frameworks in place to address these issues.
35. The NES has gone a considerable way to addressing these issues by providing specific mechanisms both in the consenting (for example, under regulations 7, 8 and 12) and planning context (under regulation 10) for these issues to be assessed at relevant times (i.e. when a new activity is established near an existing abstraction point).

36. However, it is noted that one of the key challenges Environment Canterbury experiences in practice is the necessary reliance on modelling to assess whether an activity is likely to breach a determinand level.
37. In order to implement the NES, councils must rely on modelling in often uncertain environments (for example, uncertain aquifer behaviour) resulting in uncertainty and ambiguity about the nature and likelihood of effects and also greater expense for applicants and/or councils.
38. This is contrary to the assumption in the draft NES Implementation Guidance, which indicates it should not be onerous for applicants to assess these matters (i.e. Steps 4 & 5). The proposed use of source protection zones which is addressed below would be one way of increasing certainty for councils and the community alike when it comes to managing surrounding land uses and activities that have the potential to affect drinking water supplies.
39. Environment Canterbury also supports changes being made to the NES to clarify the extent to which surrounding activities can increase concentrations in drinking water supplies.

d) What should be the scope and effect of the NES Regulations; are they too narrowly cast?

40. There are two key aspects of the NES Regulations that Environment Canterbury consider could be too narrowly cast.
41. The first aspect is the scope of the NES in relation to the water supplies it applies to. At present, the NES only refers to water supplies registered by the Ministry of Health. The type of supplies that are required to be registered by the Ministry of Health exclude some key supplies. In Canterbury there are a number of supplies that are not required to be registered because the supplies are self-suppliers (for example, camping grounds and some marae¹).
42. The supplies that must be registered by the Ministry of Health should be extended to all water suppliers that supply over 25 people for more than 60 calendar days a year. Environment Canterbury also considers that the Regulations should apply to all supplies that are required to be registered, rather than making distinctions in Regulations 7, 8, 9 and 10 and 11 and 12 depending on the number of people being supplied.
43. It is noted that if the water supplies required to be registered were extended to include all water supplies supplying over 25 people for more than 60 calendar days a year, this would have consequences (i.e. resources and financial) both for Environment Canterbury but also other agencies, including suppliers (e.g. there would be additional compliance obligations for certain suppliers not currently required to be registered). However, it is considered that the benefit of ensuring a wider level of protection for the community outweighs these costs. Additional costs on regional councils would have to be taken into account through long term and annual planning processes.
44. As set out below, Environment Canterbury also considers that Regulations 7 and 8 should be broadened to apply to certain land use consents.

¹ Marae fall into various categories of drinking water suppliers, including community supplies, specified self-supply and network supplies. Each category has different legal requirements. Registration would assist with consistency

e) Is the current trigger for engagement of NES protections (activity likely to affect water in specified ways) workable and appropriate; should it be replaced, or complimented by a spatial criterion such as the stipulation of a "source protection zone" [see 10 f below re delineation of "catchment"]

45. The current trigger levels do create some uncertainty. In particular, it is difficult to establish the impact of an activity on determinand levels, particularly with regard to diffuse discharges, prior to authorising an activity. This requires applicants and/or councils to undertake (expensive) modelling which is inherently uncertain.
46. In Canterbury, Environment Canterbury has sought to overcome some of the uncertainties by creating source protection zones (called Community Drinking-water Protection Zones) through the Canterbury Land and Water Regional Plan (LWRP).
47. Under the LWRP, all community drinking water supplies that are for no fewer than 25 people for not less than 60 days each calendar year (and are registered with the Ministry of Health) or are listed in a schedule to the LWRP are defined as being a Community Drinking-water Supply.
48. The extent of the protection zone for the supply is determined either through the resource consent for the supply, or in the interim through a formula in the LWRP. In Canterbury the source protection zones have been developed to address pathogens (as the highest-risk contaminant). The extent of the source protection zone is designed to ensure any pathogens die in the time taken for water (containing the pathogens) from outside the source protection zone to reach the drinking water intake point.
49. The rules in the LWRP then link back to these zones. For example, discharges of contaminants to water, or land, where the discharge may impact on the zones, are not permitted activities and require resource consent. The zones have the benefit of highlighting where particular scrutiny under the NES is required. This is beneficial for consents planners when processing applications for resource consent as it ensures that the effects on existing water supplies are considered when the application is processed. The source protection zones also help remove some of the scientific uncertainty as the zones are designed to be developed at the time a supply source is consented and take into account the particular characteristics for the abstraction point. For example, shallower bores tend to have larger source protection zones, given that water (and pathogens) have a shorter path from land to the intake point. This means that at the time an application for resource consent which may impact on an existing drinking water supply is processed, there is already readily accessible scientific knowledge regarding the bore and how it may be affected by the new activity.
50. Environment Canterbury considers that there would be some merit in the NES requiring all community drinking water supplies to have spatial "source protection zone". This would require all community water supply owners, together with regional councils, to determine a site specific source protection zone-based on site specific factors and treatment levels. This would involve a scientific assessment and would require the assistance of Ministry of Health and other interested stakeholders in developing the model framework.
51. While Environment Canterbury considers that source protection zones could provide some additional protection, it is noted that such zones are not fool proof and the zones would not necessarily address the existing difficulties around predicting effects from new activities. There is also the possibility for activities outside protection zones to continue to affect drinking water supplies. Changes to address the identification and management of risky bores are also addressed below.

f) What changes, if any, should be made to regulations 7/8

52. At present Regulations 7 and 8 require that regional councils do not grant water permits or discharge permits for activities upstream of an abstraction point where they have the potential to impact on drinking water quality.
53. There are two issues with the current regulations that require consideration.
54. First, the Regulations only apply to water and discharge permits, but not land use consents granted under section 9 of the RMA or subdivision consents under section 11. Land use activities also have the potential to affect water supply and consideration should be given to extending Regulations 7 and 8 to include certain land use consents granted by both regional councils and territorial authorities.
55. At present the Regulations only apply at the time a discharge consent is sought from the regional council. In the case of new subdivisions, the regional council can be faced with the situation where new subdivision and land use consents have already been granted by a territorial authority and it receives individual discharge consents for discharges from wastewater systems from each lot. Individually, each discharge permit is unlikely to trigger Regulations 7 and 8, while the cumulative and combined effects of the discharges from each lot in the subdivision can be much greater and have the potential to affect down-stream drinking water sources.
56. To address this, Environment Canterbury recommends that regulations 7 and 8 could be extended (potentially in conjunction with the use of source protection zones) to require that regional councils and territorial authorities not grant land use and subdivision consents within the source protection zone of an abstraction point if the activity is going to increase the concentration of determinands in water by a specified amount.
57. Secondly, in situations where water is not tested or does not currently meet health quality criteria, Regulation 8 provides that councils must not grant an upstream water permit or discharge permit if it is likely to "increase the concentration of any determinands in the water at the abstraction point by *more than a minor amount*".
58. This phrase is not defined in the NES and is therefore open to a variety of interpretations of what constitutes "*more than a minor amount*". In practice, and bearing in mind some of the uncertainties inherent in water quality modelling, it can be difficult for a regional council to establish whether an upstream discharge or water permit will increase the concentration of determinands over this threshold. Consideration should be given to defining what increases are acceptable.

g) What changes, if any, should be made to regulation 10?

59. Regulation 10 of the NES places certain limitations on permitted activity rules for activities upstream of abstraction points. In certain circumstances a regional council must not include a rule in a plan (under sections 9, 13, 14, or 15 of the RMA) as a permitted activity unless the council is satisfied that the activity is not likely to increase the concentration of any determinands in water at the abstraction point by "*more than a minor amount*".
60. Again, this phrase is not defined in the NES and it can be difficult for a regional council to be satisfied whether or not a permitted activity rule is likely to have this effect.
61. Environment Canterbury recommends that consideration be given by the Inquiry to amending the NES to provide clarity regarding the phrase "... *more than minor*..." to avoid the potential for different interpretation by different councils and the resulting uncertainty. Again, the use of source protection zones, within which certain activities

are not permitted, could be a way of reducing the current uncertainties and could standardise and better align the current approaches to implementation.

h) What changes, if any, should be made to regulation 12?

62. Regulation 12 applies to an activity that has the potential to affect a registered drinking water supply for no fewer than 25 people for not less than 60 days in the calendar year. It requires consent conditions to be placed on resource consent applications that may have a significant effect on the quality of water at an abstraction point. The NES provides that the condition must require the consent holder to notify the supply operator and consent authority in an event where the supply is likely to be affected.
63. Environment Canterbury supports Regulation 12 in its current form in the NES. However, one issue that the Inquiry may wish to consider further is in relation to the provision of alternative water sources where an event means that the drinking water source is rendered unsuitable because of an upstream activity. Environment Canterbury has in some instances imposed conditions on resource consents for activities that require not only notice be given to the supply operator, but also that an alternative supply be provided. If the NES required such a condition, it could avoid arguments with consent applicants over such conditions. Again, enhancing Regulation 12 in this way would strengthen the existing tools in the NES and enable greater drinking water protection.

i) Should the definition of "upstream" be amended?

64. A water abstraction can contain water sourced from multiple directions not just the upstream direction which will have the greatest influence. Rather than referring to 'upstream' the Regulations should refer to activities located within a "source protection zone", assuming source protection zones are introduced (see above). Environment Canterbury supports the creation of such protection zones.

j) Should the definition of "abstraction point" be amended?

65. Environment Canterbury considers that definition of "abstraction point" does not require amendment.

k) Should the NES regulations apply to an application by a drinking water supplier for a water permit. If so, what changes are needed to make this clear.

66. The NES Regulations could be extended to apply to an application by a drinking water supplier for a water permit. In particular, if mandatory source protection zones were created, then it is likely that the NES would need to be amended to ensure that these are set at the time any new supply water permit is granted.
67. In addition, if the Ministry for the Environment was minded to introduce regulations outlining further matters in relation to supply and the supplier's responsibilities, then it is Environment Canterbury's preference that these are included in the NES, rather than creating a separate document detailing these.

l) Is there sufficient awareness of the NES Regulations by regional and district councils; if not what steps by MfE or others should be taken?

68. In Environment Canterbury's experience, the issue of awareness does not relate to the regional or district councils. However, there is sometimes insufficient awareness by other parties, in particular consent applicants whose activities may impact on an existing drinking water supply.

69. This is particularly relevant as often there is some resistance by consent applicants to assessing effects of their activities on existing water supplies, particularly due to the cost associated with the further assessments.
70. In terms of raising the awareness of the NES and its requirements, Environment Canterbury does not consider that this is MfE's role alone. Environment Canterbury, through its CDWRG collaboration, also recognises and supports the need to communicate drinking water responsibilities to our communities. Environment Canterbury and the CDWRG intend to create a co-ordinated campaign with key messages which will lift the awareness across our stakeholders and communities so that we can better ensure our collective drinking water responsibilities are met.

m) What changes, if any, should be made to the current draft NES User's Guide (CB75); should any of its contents be codified in the regulations

71. The draft NES Users Guide does not adequately consider the potential costs to resource consent applicants where their activities may impact an existing drinking water supply. The material should be reviewed and consideration given to providing applicants and councils with guidance on exactly what is required in terms of assessment rather than simply leaving it to applicants and councils to determine on a case by case basis. This would provide all parties with clarity on what is required and establish likely costs.

n) Role of collaboration/consultation/monitoring in relation to NES Regulations; do these need to be regulated. Relationship between s69U Health Act and regional councils' responsibilities

72. Environment Canterbury considers that collaboration and successful relationships between territorial authorities, regional councils and District Health Boards is highly relevant to ensuring that the NES is met.
73. There are two particular options that the Inquiry should consider. The first option is mandatory consultation with District Health Boards, Drinking Water Assessors and territorial authorities in relation to consent applications lodged that relate to a source protection zone (assuming that source protection zones are introduced). This is addressed further below under Issue 9 (e).
74. As set out in the context to this submission, in response to the Havelock North Inquiry, Environment Canterbury, along with the territorial authorities and District Health Boards in the region formed the CDWRG. One of its tasks was to identify high-risk drinking water supplies, alongside current measures/plans to mitigate or eliminate risks. While the Group has been created voluntarily, one option the Inquiry might like to consider is whether councils are required to form joint committees (or similar working groups) to assess drinking water risks and source protection issues, including monitoring issues, on an ongoing basis. Obviously this will have funding implications that will also need to be considered. However, these costs are lesser compared to other structural or institutional options and would still ensure improved drinking water outcomes.

ISSUE 9 – CONSENTING BY REGIONAL COUNCIL

a) What changes in approach, if any, should be made to a regional council's assessment of a drinking water supplier's application for a water permit?

75. Environment Canterbury does not consider that there are any fundamental issues associated with the way applications for a drinking water supply are assessed. However, under the current framework a regional council's assessment of a drinking

water supplier's application for a water permit will currently be dependent on the individual regional council and their planning framework.

76. If national standardisation was sought, then this could be addressed in the NES (or potentially in the new National Planning Standards when these are introduced).

b) What changes, if any, should be made to regional councils' approach to imposing conditions on such permits?

77. Environment Canterbury does not consider that changes are required to the approach taken by regional councils to imposing conditions on a drinking water supplier's water permit.
78. Environment Canterbury understands that the Inquiry might be minded to consider whether conditions placed on water take and use consents should address matters associated with whether water suppliers are meeting their obligations under the Health Act. Based on the existing legislative framework under the RMA and the Health Act Environment Canterbury does not consider it appropriate (or lawful) to attach conditions to water take and use consents in relation to testing water quality in order to ensure that water suppliers meet their obligations under the Health Act 1956. It considers that it has sufficient authority in terms of the types of conditions it can impose and that these address the environmental effects associated with permits to take water for community supply (which reflects regional council functions in relation to drinking water).

c) In relation to permit conditions, what compliance monitoring approach should regional councils be required to undertake or provide for?

79. As is discussed further below under Issue 10 (g), one of the challenges for regional councils is actually being made aware of potential issues in relation to the compliance with the conditions of water supply consents.
80. To address this activities that may affect a water supply (in Environment Canterbury's case within a Community Drinking Water Protection Zone) should be monitored more regularly depending on their risk to the supply. Monitoring should not be limited to the water supply consent; rather, an holistic approach should be taken to maintain documented records of any other consents for activities (within a Community Drinking Water Protection Zone) that have non-compliance and the potential to affect a water supply.
81. It is noted that through the adoption of a working group or joint committee approach it may also be possible to introduce systems that work together, across the entities, to enable better sharing of information and data.

d) Should Regional Councils consider the potential for increased risks for drinking water when granting resource consents for controlled activities

82. Regional councils should consider the potential for increased risks when the status of the activity is set rather than at the decision stage for controlled activity consents. Controlled activities cannot be refused and therefore should not be used when the activity has the potential to contravene the NES Regulations.
83. Environment Canterbury's planning framework addresses this by not permitting discharges within Community Water Drinking Protection Zones. Generally, the default status of an activity located within Community Water Drinking Protection Zones is restricted discretionary. This enables the effects of the discharge to be specifically considered and if necessary consent can be declined. The NES could potentially mandate that certain discharges or activities in a source protection zone must not be permitted or controlled activities.

e) Should Regional Councils notify the DHB and DWAs of all resource consent applications with the potential to impact upon drinking water sources

84. It is unclear whether this issue refers to 'notification' in the formal sense under the RMA. Environment Canterbury does not consider that formal public or limited notification of consent applications that have the potential to impact upon drinking water sources should be mandated. However, Environment Canterbury sees benefits in formalising 'consultation' with District Health Boards and Drinking Water Assessors so that both entities are advised of any applications that have the potential to impact a supply.
85. Consent applicants could be required to show how any comments from the District Health Board or Drinking Water Assessors have been taken into account in the application. This could apply to applications lodged for discharges and other specified activities in supply protection zones.

ISSUE 10 – REGIONAL COUNCILS' APPROACH TO FIRST BARRIER PROTECTION FOR DRINKING WATER – OTHER THAN UNDER NES REGULATIONS

a) Should first barrier protection be accorded greater recognition and endorsement?

86. Environment Canterbury considers that first barrier protection is an important way of ensuring drinking water quality.
87. However, it considers that the tools are already available in the RMA framework (through the suite of plan provisions, consenting, monitoring and compliance action), subject to potentially introducing compulsory source protection zones.

b) Should regional councils have responsibilities for drinking water in addition to those in the NES Regulations

88. Not specifically, however, as set out above, Environment Canterbury considers that the NES Regulations should be extended to address land uses so that water quality can be protected before abstraction.

c) Should the current indirect or co-incidental responsibility under the RMA be made more direct in respect of drinking water (this will overlap with the NES Regs issues, but may not be limited to the NES Regs regime)

89. Environment Canterbury does not consider that its functions that relate to drinking-water are indirect or co-incidental and generally considers that there is a clear delineation of responsibility under the existing legislation. It considers that the issue relates more to the implementation by the different agencies.
90. As set out above, Environment Canterbury considers that there would be some benefit in all responsibilities, functions and powers of the different agencies in relation to drinking water being regulated via one instrument (for example, either via the NES Regulations or other legislation).

d) Should regional councils' responsibility for the protection of drinking water sources extend to collaboration and consultation with other relevant parties in the drinking water supply system

91. Yes, Environment Canterbury agrees that in order to fulfil its functions in relation to drinking water, at times it will require collaboration and consultation with other relevant parties. For example, regional councils and territorial authorities need to talk closely about land use changes occurring (such as subdivision of land or changes to zoning) where this has the potential to impact on existing drinking water sources.

- 92. Better collaboration would also help ensure that best practice and 'lessons learned' were shared amongst stakeholders.
- 93. It would also assist with emergency planning and help ensure that knowledge was shared and prioritisation given to those supplies where improvement is needed. In our experience collaboration/information sharing of this nature helps ensure necessary action is actually undertaken (due to the name and shame effect).
- 94. Possible options to facilitate better collaboration and consultation are set out above under Issue 8(n).

e) Should the regulatory regime provide for a catchment protection plan and, if so, how should such a plan be prepared and administered?

- 95. We have interpreted this reference to catchment protection plans as relating to what we term "source protection zone" rather than the traditional catchment definition (i.e. a basin bounded by natural features).
- 96. As explained above, Environment Canterbury does see some benefit in source protection zones as an effective way of protecting drinking water. Any such plans based on these zones would require input from territorial authorities along with other parties. National regulation would likely be needed to ensure all councils introduced such plans. However, as noted above, Environment Canterbury does not consider such plans would be a panacea to the issues and implementation will at times still face challenges due to the complexity of these issues (for example the scientific uncertainty inherent in predicting effects on aquifers). This is an example, where other tools, such as joint working groups, are important to ensure complex issues are addressed.
- 97. This highlights that it is not that a single tool or entity can be implemented to better ensure drinking water supply is protected, but rather a suite of improvements needs to be made to the NES Regulations and their implementation by all stakeholders.

f) In relation to the responsibilities of all agencies for catchment protection, how should "catchment" be delineated or defined?

- 98. Environment Canterbury considers that "catchments" would need to be developed based on the characteristics of the supply that is sought to be protected.
- 99. As noted above, Environment Canterbury has developed its source protection zones based on pathogens (as the highest risk contaminant). However, it is acknowledged that source protection zones can be developed for a range of contaminants. Essentially the source protection zone is drawn to protect a source (including both bores and surface water sources) from a particular contaminant. If the contaminant gets into the ground within a source protection zone, it could reach the source intake, but if it is in the ground outside the source protection zone, then it is likely to be too far away.
- 100. A similar approach is to use one-year time-of-travel approach. In other words, water within the source protection zone can reach the intake within less than a year, but water outside the zone takes more than a year to reach the intake. The rationale is that pathogens cannot survive for a year, so they will die by the time they reach the intake.
- 101. In developing source protection zones, or catchment protection plans, catchments would need to be defined taking into account the characteristics of the aquifer, its location, the surrounding land uses and the contaminants which the drinking water is at most risk of being contaminated by. It is important to consider surface water

sources in addition to bores, as surface water takes can also be vulnerable to contamination.

g) Should any changes be made to regional councils' knowledge and management of potentially risky bores and other risk activities in the catchment area

102. One of the real challenges in managing drinking water supply and in particular first barrier protection relates to what actions are taken to identify 'risky bores' and also what is done to address any risks.
103. At the outset it is noted that the greatest risks arise in relation to older bores. For example, under Environment Canterbury's planning framework new bores have to be drilled by accredited suppliers, or require resource consent. This means that generally the Council is well aware of the risks and can utilise the range of existing enforcement tools as necessary.
104. For older bores, one of the challenges is actually being aware of the risk in the first place.
105. Identifying risky bores or water supplies (from a drinking water perspective) can be difficult because at present the monitoring of supplies themselves is done by the supply owners and/or drinking water assessors. Further monitoring by regional councils of other wells or locations in the vicinity of a drinking water supply intake does not usually help to identify what is going on at the supply itself.
106. In order to address drinking water risks, Environment Canterbury considers that a more integrated approach is required.
107. Currently, in the Canterbury region these risks are being addressed in an integrated way through the creation of the Group. The Group (and Environment Canterbury) consider that there might be some merit in considering whether drinking water groups or joint committees should be formally required under legislation so that monitoring and compliance issues can be considered in a holistic manner by all key agencies. This would allow monitoring results from the suppliers themselves to be considered alongside State of the Environment monitoring and other investigative and consent monitoring undertaken by regional councils from time to time.
108. One issue in particular that Environment Canterbury considers needs addressing is the fact that presently District Health Boards and Drinking Water Assessors are not required to notify regional councils when there is a failure to meet a drinking water standard. While in practice notification generally occurs (and this has been facilitated by the Group) Environment Canterbury strongly considers that notification should be mandatory so that the regional council can take action to consider what surrounding activities might be impacting on the supply. Consideration should also be given to whether or not District Health Boards and Drinking Water Assessors should be required to report more broadly on a periodic basis regarding compliance with drinking water standards.
109. Our experience with the Group to date is that trust has built between the stakeholders whereby self-disclosure in a voluntary capacity arises. The joint approach is also important as it allows joint solutions to be developed, which recognise the different functions and responsibilities of the stakeholders. With further refinement and greater direction to have such groups, the protection of drinking water will be enhanced.
110. The other issue that requires consideration is whether regional councils and the other entities concerned have the necessary tools to manage and address systematic issues when a 'risky' bore has been identified.

- 111. While the current suite of enforcement tools is appropriate for dealing with site specific issues, the management of risky bore becomes more challenging when the bore or water source is at risk from a range of activities.
- 112. For example, at present if water supply is being impacted by the cumulative effects of surrounding land uses, tools such as plan reviews and consent reviews are extremely time consuming and expensive to implement.
- 113. Other tools sometimes are not sufficient to compel water suppliers to take action. For example, Environment Canterbury's planning framework requires bores to be properly sealed and where risky bores are identified, Environment Canterbury actively encourages them to be sealed. However, water suppliers can sometimes be reluctant to take steps that could address the issue.
- 114. Environment Canterbury would support the development of tools or regulatory mechanisms that provided for risks to be identified (potentially through mandatory working groups) alongside tools to ensure that suppliers then take appropriate action to mitigate those risks, including securing the intake, defining a source protection zone, monitoring the supply, and treating as appropriate.

h) Is it sufficient that regional councils' knowledge and management is carried out through their SOE monitoring or is more specific action required?

- 115. At present information about bores and potential contamination comes from a number of sources including State of the Environment (SOE) monitoring, consent monitoring and monitoring by District Health Boards and Drinking Water Assessors for compliance with the Drinking Water Standards.
- 116. SOE monitoring does not currently directly cover drinking water supplies, nor is it intended to. Environment Canterbury does consider that there could be some benefit in SOE monitoring being more targeted to drinking water. By doing so, this could help provide another source of information in terms of identifying risky water sources.
- 117. However, it is noted that regional council knowledge and management is not limited to SOE monitoring and compliance investigations are undertaken when issues with consent compliance are identified. Any changes made to the regulatory framework address the management of information needs to recognise that information in relation to bores and their risks is not held by one entity. Again, Environment Canterbury sees a working group or joint committee approach as advantageous as it allows all information to be considered, including information in relation to surface water which has its own risks, and appropriate actions agreed in light of the information.
- 118. As set out above, Environment Canterbury considers that through the adoption of a working group or joint committee approach it may also be possible to introduce systems that work together, across the entities, to enable better sharing of information and data relating to drinking water supply.

i) Are any changes desirable in relation to the involvement of, and responsibility by, the Ministry for the Environment in respect of drinking water?

- 119. Any further role for MfE should be limited to setting standards and ensuring that State of the Environment monitoring programmes adequately address drinking water monitoring.

j) Should there be greater guidance and/or education of regional councils in respect of their role in drinking water?

120. MfE could provide guidance and tools to regional councils, territorial authorities and the broader public so that consent applicants are not caught out by requirements. As noted above, Environment Canterbury also considers that it has an important role to play in educating our communities about the requirements under the NES.

ISSUE 22 – EMERGENCY RESPONSE PLANS

121. Environment Canterbury specifically recognises the need for emergency response plans (ERPs) and the key role these play in managing outbreaks.
122. Environment Canterbury recognises that this is a multi-agency issue and specifically endorses the submission made by the CDWRG in relation to ERPs.
123. The Group has noted the importance of including emergency response plans in CDEM processes, including Civil Defence simulations. This is deemed a priority by the Group and illustrates how current mechanisms, aligned with a requirement for such groups, can generate improved drinking water outcomes for communities.

CONCLUSION

124. Environment Canterbury thanks the Inquiry for providing an opportunity to comment on the important issues being considered.
125. Environment Canterbury would be happy to assist the Inquiry further if the Panel has any questions arising from this submission or requires any further information.

FOR FURTHER ENQUIRIES:

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