

**Submission**

**Improving the protection of drinking-water sources  
– Consultation Document**

**March 2022**

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## SUBMISSION – IMPROVING THE PROTECTION OF DRINKING-WATER SOURCES

**By:** Waipā District Council

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## INTRODUCTION

1. Waipā District Council (the Council) welcomes the opportunity to provide comment on *'Improving the protection of drinking-water sources – Consultation Document'*.

## GENERAL COMMENTS

1. This submission is that we are in support of the general intent of the changes, but not in their entirety.
2. Waipā District Council notes the structure of the document and the use of targeted questions to garner feedback required by MfE. These are useful but can detract from wider feedback on the proposals and the implementation of regulatory changes that could have significant unintended consequences and adverse community outcomes. Consequently, our submission is structured in two parts; review on the document and its general intent and then a response to the questions raised by MfE.
3. Waipā District Council notes the short turnaround time on consultation required at a busy time for Councils. The two-week extension is appreciated, but still adds pressure to stretched resources to meet internal committee meetings to endorse the response to MfE.
4. Consultation on the document, and the changes proposed, is not clear at this stage and seems more targeted to Regional Councils, due to the key role Regional Councils play in source water protection and consenting. It does not appear to have included significant stakeholder consultation, that is, resource users and industry, that are also greatly affected by the proposals.
5. Waipā District Council recognises the importance of a stronger regulatory framework and regime following the Havelock North Contamination Incident. However, there are concerns within the sector around the cost of complying with the proposed changes to the NES-DW and unintended consequences on Councils and communities.
6. There may be unintended consequences to Council discharge resource consents that they currently hold (wastewater and stormwater) due to application of the amended NEW-DW requirements.
7. There is no provision for the significance of three waters infrastructure and the essential services they support and therefore providing security for the activity.
8. Waipā District Council accepts the principles intended through the changes in terms of polluter pays, however we believe the achievement of drinking-water source protection could be implemented with less complexity and at a lower overall cost to community.
9. There are considerable shortages in skills and resources available within the sector and the proposed regulatory changes will put extra strain on this. A strategic approach to training and bringing new people into the sector will need to be incorporated into the mandate of Taumata Arowai.
10. Waipā District Council strongly supports the principle of Te Mana o te Wai.

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## KEY OBSERVATIONS

### ***Proposal 1***

1. The intent of establishing a default methodology for delineating source water risk is supported, but not in its entirety.
2. There appears to be conflict of the Stock Exclusion Zone 2020 of 3 metres and the SWRMA (Source Water Risk Management Area) 1 zone of 5 metres.
3. Travel times in different regions in New Zealand could mean excessively large impractical SWRMA 2 areas such as in Canterbury whereby soils are very porous.
4. The number of unregistered supplies in New Zealand is of concern and the impact these could have on SWRMA 3 areas whereby overlapping of SWRMA 3 areas may lead to impractical applications and consequences.
5. Resourcing for Regional Councils and Territorial Authorities to site audit and map the unregistered supplies is of concern with the document seeming to only account for 'mapping' time as opposed to ground truthing and finding missing data.
6. The resource strain will be compounded should a retrospective consent application be enforced.
7. Caution is given to the allowance of bespoke methodology and that the circumstances for this application be very specific so there isn't movement away from a nationally consistent methodology.

### ***Proposal 2***

1. The intent of improving how activities that pose risks to source water are regulated/managed is supported by Waipā District Council but not in its entirety.
2. Retrospective application could have an unforeseen consequence/impact on industry and therefore on the community should activities not be permitted.
3. It is not clear how the NES-DW has considered the National Policy Statement for Urban Development and the impact restrictions will have. It is possible that pressure will be put onto water suppliers by developers to ensure urban development.
4. Little guidance on the scope of activities that should be restricted is given, thereby reliant on skills and resources of people to undertake risk assessments and decision making.
5. The proposed change to bore management is supported with review of NZS 4411:2001 vital to ensure future works are to an acceptable standard.
6. The impact on ratepayers is glossed over in terms of potential costs for the regulatory changes, that is, capping an old bore on private land.
7. Engagement from resource users directly to the water supplier for consenting matters has the potential to cause a large resource drain to the water supplier, especially considering the number of

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unregistered supplies that have been estimated to be in New Zealand (80,000 estimated by Beca 2020).

**Proposal 3**

1. The intent of protecting all registered water supplies so to align with the water services act is supported by Waipā District Council but not in its entirety.
2. The sheer number of unregistered supplies and the process proposed imparts a very large resource drain on Regional Councils.
3. The overlapping of SWRMA 3 areas is a very real possibility and having such overlap will detract away from the message of source protection.

**Document Structure and Intent**

1. The overall intent of the document and proposed changes to legislation are supported by Waipā District Council in general but not in its entirety as it stands.
2. Gazetting of new regulations in the second half of 2022 seems to exclude wider consultation with key affected stakeholders and the Council's community.
3. Resourcing to comply with the proposed changes and timeframes are concerning particularly given the scale and scope of changes and interrelationships with other acts and regulatory instruments.
4. The document is easy to read and has good diagrams to help clarify concepts, changes, and regulatory linkage.
5. The questions are a useful addition to understand the key aspects that MfE wishes to consider, but also constrains wider feedback in terms of Council and community impact, potential alternative approaches, and unintended consequences of change application.
6. The document structure is somewhat confusing and can lead to abortive effort in terms of answering question in the text to then find more detail in later sections that can clarify their context.
7. The lack of section numbers means feedback and referencing are made much more difficult for both feedback from consultees and review of returns by MfE.
8. The document references multiple other acts, documents and sources that need to be read in order to answer the questions logically – this takes considerable time and adds complexity to responses and the workload pressures on the consultees.
9. The case studies are too simplistic and do not cover the true cost of compliance and upgrades required at a micro (site level), or macro (district wide) and tends to focus on the regulatory fees rather than capital and operational costs to the water supplier, or the resource user.
10. The benefits of change in the document seem to be overstated with little evidence and “on the ground” consequences are not covered well.
11. Some of the examples used to justify the reason for change are too high level, not directly related to New Zealand and seem to exclude:
  - a. Other reasons for the root cause of the issue other than source drinking water contamination.

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- b. Alternative approaches that could be considered with a lower overall cost to community, water supplier and resource users.

## **KEY RECOMMENDATIONS**

### ***Proposal 1***

1. The stock exclusion zones of SWRMA 1 are believed to be in place to protect the well head. This is not clear in the document and does not appear to have a scientific basis for either the 3, 5 or 30 metre exclusion zones. These matters should be addressed and clarified.
2. Travel times within streams can be notoriously difficult to assess and need to be standardised to a worst case scenario for a pollution event. Consideration should be given to the use of Mean Annual Low Flow (MALF) and related to the amount of product stored / likely to be discharged into the water body and its potential concentration at the point of abstraction.
3. The issue of available resources to undertake mapping, ground truthing and implementation of the NES needs to be addressed.
4. A standard set of SWRMA zones should be implemented with an ability to modify to bespoke changes following a framework of considerations to justify moving away from them.

### ***Proposal 2***

1. Retrospective application should only be considered where there is a high risk of a contaminant entering the environment and having a significant impact on drinking water quality / health of the consumers. Further centralised guidance on this is required from MfE and or Taumata Arowai.
2. Consideration needs to be given to a wider remit of regulatory changes coming through that are not necessarily directly water related including the National Policy Statement for Urban Development, Building Act and bylaws etc.
3. Case study examples need to be populated with example costs for compliance and not just regulatory / procedural costs.
4. Case studies need to be more complex and reflective of major industry and large-scale agriculture etc.
5. Guidance materials need to be developed for resource users and water suppliers including templates for completion.
6. A system of filtering applications based on risk needs to be employed so that water suppliers are not overwhelmed with low risk and irrelevant applications.

### ***Proposal 3***

1. The issue of available resources to undertake registration reviews and multiple mapping, ground truthing exercises as water suppliers register over time needs to be addressed.

### ***Document and Intent Recommendations***

1. Resources, including funding, should be made available to Councils to better understand the consequence of the proposed changes for their communities prior to their implementation.

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2. The document should be re-structured and circulated to a wider range of consultees such as water suppliers, resource users and industry before changes to legislation are gazetted.
  3. More complex and real-life case studies should be undertaken to understand:
    - a. The full costs and complexities to comply with the proposed changes.
    - b. Timeframes required for compliance.
    - c. Potential impacts on communities.
  4. Waipā District Council is willing to support the development of these case studies and has already utilised the SWRMA concept in its district. Utilising work already undertaken could reduce the time and resources required to run the case studies. This would however require funding support.

## **MfE QUESTIONS**

### **The default method for delineating SWRMA**

1. *Domestic and international evidence suggests that delineating three at-risk areas is a good approach for protecting sources of drinking water. Do you think this is a good approach for protecting our source waters? What other approach can you think of that could contribute to protecting our drinking water sources? Do you think that three areas (and therefore levels of control) are sufficient to protect our drinking water sources?*

- This is considered a sound approach. Delineating three at-risk areas is consistent with international evidence and an appropriate model for New Zealand. In addition, these zones can work in conjunction with current tools, such as the Waikato Regional Council water allocation calculator.
- The application of this approach to very small supplies (apart from self-suppliers) creates a problem due to the large number and likely lack of information for many. Education and a very simplified approach for very small supplies (< 25 people) may offer an alternative. These very small supplies are more likely to be impacted by their own land-use. For groundwater, a simple calculated fixed radius, may be sufficient for awareness which could then be addressed more specifically by obvious perceived risk or indications of contamination.
- For the most part yes, the three zones are a sufficient mechanism to protect drinking water sources but will depend on the management application with the caveat that source water risk can only be mitigated whereas groundwater can be protected with zone management providing a multi-barrier approach. Surface water is inherently more vulnerable and therefore largely reliant on treatment. Therefore installation of treatment processes to combat main sources of contaminants are still required to obtain the multibarrier approach.

Risks to source water supplies could be mitigated through providing a warning (e.g. 8 hours) so supplies can be shut off and reopened after a transient threat has passed. In contrast, impacts on groundwater are typically much more persistent and difficult to rectify making protection the most effective option.

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2. *In your view, is the method to determine each SWRMA, for each type of water body, the best option?*

- *Should other factors be considered in determining size?*
- *What challenges can you foresee in delineating SWRMAs?*
- *Do you have any comments or feedback on the detail contained in the technical guidance materials?*
- *Should SWRMA for all aquifers be bespoke so their unique features, depth and overall vulnerability can be considered?*

- The size of the SWRMAs is consistent with national and international literature as outlined in the technical guidance materials. However, there is a high degree of interconnectedness of waterbodies that doesn't appear to be properly recognised in the scheme for delineating SWRMAs. Within a catchment there will be areas where surface and groundwater are tightly linked.
- Zones could be recognised as a balance between protection and constraint and that community should have some involvement in deciding given that each region and community is quite different. Initially, a simplified interim delineation method could be used, particularly as an interim measure for smaller supplies.
- An initial administrative challenge in delineating SWRMAs includes time constraints, information availability, process delays in formalising (Schedule 1 process or gazetting) and knowing abstraction points. Zones would be more effective with community consultation, however adding to the challenge of tight timeframes thus lends to the rationale for allowing interim zones. Additionally, the proposed application of SWRMAs to large numbers of very small supplies poses a major challenge as would be their subsequent management. The relative importance of the SWRMAs risks being lost with such a large proliferation.
- The case studies are too simplistic and need to be more comprehensive to be reflective of major industry and large scale agriculture to ensure a practical application.

The implications for being inside of SWRMA zones are glossed over. Has consideration been made on long standing industry investment in infrastructure that may not be allowed to operate in a SWRMA due to its discharges or what is stored on site? Has consideration been made on what will happen to communities should the industry close down in an area? Has consideration been made on how the direct approach to water suppliers from "developers" of sites is resourced and managed consistently and to a high standard? Also of concern in this area is pressure from developers on water suppliers and effects on the National Policy Statement for Urban Development.

- Ultimately bespoke solutions should always be available where justified, but for consistency, timing and process facilitation, default guidance is beneficial and consistent with Havelock North Inquiry (HNI) findings.

3. *For lakes, do you agree that SWRMA 2 should include the entire lake area?*

- *What might be an alternative approach?*



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- The entire lake should be included as well as tributaries/catchments under SWRMA 2 and 3 regions. A possible alternative approach could involve delineating part of the lake, requiring survey of flow directions within the lake. For large lakes, greater than a certain threshold this may be cost justified but for smaller lakes, it may not make fiscal sense.
4. *SWRMA 1 for lakes and rivers is proposed to extend 5 metres into land from the river/lake edge. This contrasts with 3 metres setback requirement of the Resource Management (Stock Exclusion) Regulations 2020. SWRMA 1 is proposed to be used as a basis for controlling activities close to source water intakes, and applies to a wide range of activities. Do you think these differing setbacks will cause confusion or result in other challenges?*
- Yes, confusion will occur especially with resource users in understanding the differences and which regulations apply.
5. *There is evidence suggesting that a 10–30-metre radius around source water bores is a preferable way to delineate the area where activities would be heavily restricted (SWRMA 1). However, expert advice suggests a 5-metre radius is the most workable option.*
- Do you agree that a 5-metre radius around a source water bore gives enough protection? Why or why not?*
- If not, what alternative would you suggest?*
- No - the 5 metres protection is less than the recommended zone of 10-30 metres. However, 5 metres has a more practical application particularly such as in Havelock North which are on the roadside. Greater clarity is required regarding this minimum distance which is about exclusion and prevention of any potentially hazardous activities, rather than just protection.
  - As per previous comment have a minimum zone of 5m and then take into account catchments and site specifics to ensure this 5m zone applied is appropriate.
6. *While water takes from complex spring systems or wetlands may require a bespoke SWRMA to ensure consideration of any contamination pathways present, a default method is necessary to ensure interim protection. Do you think a default method is practicable in most situations?*
- Do you think a regional council should determine (on a case-by-case basis) the most applicable default method: for a river, lake or aquifer, or is a different default approach necessary?*
- If so, what alternative would you suggest?*
- Use of a default method with national direction is helpful for many situations as a starting point from which bespoke methods may then be justified. This should all be on a risk based approach.
  - Small supplies could have fixed radius in the interim until such systems are investigated further

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## Regional council mapping of SWRMA

7. *How long do you think is necessary for regional councils to delineate SWRMAs for currently registered water supplies in each region, using the default method?*

- There are many aspects involved in estimating the amount of time it will take for Regional Councils to delineate SWRMAs: data capture, data uploading, data visualisation and reporting.

Accurate data capture will be the most challenging aspect of the process, both the spatial location and the attributes recorded against a data point. To streamline this, staging relative to supply size could be applied. For example, existing registered supplies to be registered within a year; formerly registered supplies for > 25 people may be possible in ~2 years; smaller than that in 5 years to allow for information to come into Taumata Arowai (TA). Bespoke delineation using more sophisticated stochastic numerical modelling is likely to take the most time reflecting its complexity. Once water takes are accurately located and defined, needs of the SWRMAs can be addressed with rules and conditions of those SWRMAs being determined.

Level of knowledge and resources within each Council will also affect time to do this and if ground truthing/site audits are required.

8. *What challenges do you foresee in delineating SWRMAs, when previously unregistered supplies are registered with Taumata Arowai (see Proposal 3 for more details)?*

- Not all unregistered supplies are known, who will audit to ensure they have registered and how will these supplies be found if they don't register?

Another aspect to consider is given the delayed registration for smaller supplies, those suppliers could be disadvantaged under the new NES-DW if their SWRMA intersects an existing SWRMA for a registered supply. Depending on the specific regulations in the new NES-DW, the smaller suppliers may have greater information requirements to prove their supply would not affect an existing registered supply regardless of who was existing first or the scale of operation. Guidance would be helpful in the NES-DW on requests like this or consideration into the complexities that small and rural supplies pose to the regulations.

A practical issue also exists in relation to updating the SWRMA maps over time. If the process is required to undergo the schedule 1 planning process or gazetting, the process could become costly and quite lengthy in time.

9. *What support could enable regional councils to delineate SWRMAs within shorter timeframes?*

- Funding, resources, GIS algorithms and protocols to narrow the unknowns down and develop a standardised approach to assessment. Use of case studies and examples of how it has worked in practice - this should include impacts on resource users.

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The development of a central database where Taumata Arowai manages the data that regions interact with. This central database would have all data layers (GIS features) fully defined in an agreed upon schema.

10. *Do you think consideration should be given to mapping currently unregistered supplies as they register (but before the four-year deadline provided under the Water Services Act), or do you think that waiting and mapping them all at the same time is a better approach?*

- Mapping of currently unregistered supplies using established tools and processes would allow the workload to be more manageable over time. This could also encourage unregistered supplies to register sooner rather than later. However, this would be dependent if mapping each SWRMA requires a Schedule 1 change, gazetting, or other avenue to fulfil statutory requirements.

### **Bespoke method for delineating SWRMA**

11. *If a regional council has already established local/regional source water protection zones through a consultative process, should there be provision to retain that existing protection zone as a bespoke method without further consultation or consideration against new national direction?*

- Depends on the approach taken and the risks involved. The ability of existing provisions to retain protection zones as a bespoke method without further consultation or consideration against new national process with a potential for a short review opportunity would lessen workloads or unnecessary reviews. Provisions for reviews could be built into all SWRMAs after significant changes (such as a well-field redesign).

### **SWRMA 1 controls**

12. *Do you think national direction on activities within SWRMA 1 is necessary?*

- *If so, what activities should it address?*
- *How restrictive should controls be in SWRMA 1, for resource users other than water suppliers?*
- *Are there any activities you believe should be fully prohibited in this area?*
- *Are there any activities you believe should be permitted or specifically provided for or acknowledged in this area?*

- Waipā District Council believes national direction on activities within SWRMA 1 are necessary to provide consistency of approach across the country. However, the consultation document outlining the range of activities to be impacted within the SWRMAs is extremely broad and does not adequately cover point sources of contaminants or consideration of airborne contaminants. Further, surface water and groundwater require substantially different considerations. There should also be inclusion of storage volumes conditions and controls on-site for high risk products and discharges.

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- For SWRMA1, the range of activities include:
    - Land uses, including drilling of bores and earthworks over vulnerable aquifers. It is not clear from the wording whether other land uses may also be included; nor is it clear how a vulnerable aquifer will be defined or identified.
    - All s13 uses of river/lake beds
    - All s14 uses of water (i.e. take, use, dam, divert)
    - All discharges except discharges to air.

Not only does this list collectively cover almost all activities regulated by Regional Councils outside of the marine coastal area, but it excludes most point sources and consideration of airborne contaminants. Some of the activities listed for SWRMA 1 will have little potential impact on surface water quality. This is particularly true where the activity occurs on land within 100 metres of a riparian zone for SWRMA 2, such as: small (domestic/stock water scale) water takes, small water intake pipes, any discharge of water proven to contain no contaminants and minor stormwater discharges to water. Controlled activities should also be considered such as bore drilling to replace collapsed or dry bores or where an urgent replacement water supply is needed. Waipā District Council recommends further refinement of the list of activities affected to ensure focus is correctly placed on activities that pose a risk to surface water quality and that urgent controlled activities can progress safely.

- As outlined in Waipā District Council’s response to question 8, small suppliers who need to register their water supply could be restricted from continuing to take water as a permitted activity due to being located within a SWRMA 1 zone of another supplier who registered first. This point should be clarified in the regulations.
- Waipā District Council recommends all activities not related to supply maintenance be restricted in SWRMA 1 zones and should include a complete exclusion for resource users, other than water suppliers in SWRMA 1 zones for groundwater quality. Waipā District Council would like to point out that water suppliers seem to be excluded from the requirements in the wording used within the document . Waipā District Council does not believe water suppliers should be exempt from all restrictions given there are pollutants that can result from water supplier infrastructure such as backwash from plants, runoff with contaminants, process issues and dumping of water with unknown contaminant risk.

*13. For water suppliers, are there any other activities beyond intake maintenance/management that should be provided for?*

- Yes treatment processes included at the intake should be employed that are able to remove priority contaminants that are known to be being discharged currently. Examples being oil booms, raw water quality sampling and analysis - on line preferably if it is a high risk catchment. GAC and PAC could also be utilised.

The complications that will arise when water supply consents come up for renewal need to be considered. This is particularly true where the supply itself is a “restricted” activity because it is within the SWRMA 1 zone of another source. For example, two

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groundwater supplies sit within the SWRMA 1 zone of the other. Potentially, the renewal of consent for the first to expire may be declined because of the potential effects on the other bore. However, the declined consent would simply be an artifact of the order in which the consents expired. Reciprocal effects need to be outlined in the regulations.

14. *In and around freshwater, control of pest species (including aquatic pest species) may be necessary, including through physical control (removal, that may include bed disturbance) or chemical control (discharge).*

– *How much of an issue is this in and around abstraction points?*

– *How critical is that work?*

– *How often is this work mandated by other regulation or requirements?*

– *How frequently is this work undertaken by parties other than the drinking-water supplier (or their contractors)?*

- This is not truly known as raw water quality monitoring in NZ is currently lacking. Looking at some catchments it is obvious that herbicides are used. That is, on roadsides, large scale agricultural application of glyphosate on paddocks etc.
- Criticality will depend on the situation, that is, is it for safe navigation, prevention of flooding and damming of water courses or prevention of intake screen fouling?
- This is a very open question and needs a panel to inform on both national and regional / local legislation. Examples here are spraying on berms and verges on local roads and state highways, river walkways etc.
- Unknown - Council activities may have a schedule or level of service, other entities may not.

### **SWRMA 2 controls**

15. *Do you think national direction on activities within SWRMA 2 is necessary?*

– *If so, what activities should it address?*

- A set of generic SWRMA provides a coherent national approach and then site specific conditions could be added to the system to cover a whole host of other considerations in SWRMA; these could be standardised also, but justification for moving away from the norm should be required. This should all be on a risk based approach.
- Activities that should be addressed include any activities which may compromise the supply at source such that it would likely not meet the drinking water guidelines before treatment. Of primary focus are potential sources of pathogenic micro-organisms. This includes otherwise typically permitted activities such as sheep farming, as was the case in Havelock North. Regarding groundwater, an obvious manageable contaminant of widespread concern is nitrate. Any persistent, mobile and toxic contaminant may also be of concern and therefore warrant consideration.

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Those that bio-accumulate such as dieldrin and PFAS have particularly low MAVs and are therefore of concern.

16. *In your view, how much will this proposal impact the current situation in your region?*

- What discharges to water are currently permitted?*
- Should provision be made to continue to permit those activities? What controls are typically used to ensure potential adverse effects are managed?*

- Waipā District Council believes the proposals in the consultation document will have a strong impact in the Waikato region. Substantially more scrutiny will be required given the proposed changes to the NES require a multi-barrier approach compared with what has been a single barrier approach of treatment (unless the supply was non-compliant). In a relative sense the Waikato groundwater is comparatively well protected due to relatively slow travel times and high attenuation in most hydrogeologic settings. The Waikato is also relatively intensively developed so is predicted to be most affected in respect to surface water constraints. Also given there has been no supporting policy for SPZs/SWRMAs at Council through the Waikato Regional Plan, those zones which have been mapped had no status and therefore there is a major shift required in zone delineation and management. This also has significant consequences in respect to risk assessment.

- For SWRMA 2, the restricted activities include:

Discharges of contaminants to water in relation to land over vulnerable aquifers:

- Drilling, construction and maintenance of bores
- Earthworks that damage aquitards

While the range of activities affected is narrower than in SWRMA 1 zones, the specification of all discharges of contaminants to water would probably include all stormwater discharges and many drainage/flood scheme discharges, which may pose little risk to downstream water supplies. It may also potentially capture small-scale agricultural discharges which are currently permitted activities (as well as 1080).

- Provision to include certain activities depends on risk and would need a risk based review to determine if the activity can continue.
- Regional and District Plans, Building Act, NPS-UD etc are controls typically used to ensure potential adverse effects are managed.

The reference to “earthworks that damage aquitards” raises concerns about how this would work in a regulatory framework. The need for consent will depend upon whether damage to an aquitard will occur. There is too much subjectivity and technical uncertainty for this to be an enforceable rule. What does “damage” mean? What threshold of damage may be acceptable? What level of certainty that such effects will occur, is required? What is an aquitard defined as for the purposes of the rule? Regional Councils will generally not have maps of the aquitards in their regions so how will anyone know whether any “damage” may potentially affect one? It is probably preferable to define a scale of earthworks whereby consent is required. Arguably, this

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is appropriate anyway. It seems inconsistent that earthworks that result in large-scale exposure of soils are currently not identified as an activity within scope of the proposed SWRMS 2 restrictions, given the potential for such earthworks to result in adverse water quality effects downstream due to run-off.

17. *Are there any other activities that should not be permitted within SWRMA 2?*

- Large scale earthworks and activities that pose a microbial risk such as animal and human waste discharges and other potential sources of contaminants.

18. *The original intent of SWRMA 2 was to manage microbial contamination. However, there are indications that protections against other contaminants may be required. What contaminants do you think should be controlled in SWRMA 2?*

- Any manageable contaminant which may exceed drinking water guidelines as described above should be controlled in SWRMA 2. Other factors that should aim to be controlled in SWRMA 2 areas are sediment and turbidity.

19. *What other challenges do you see when making a consent application within SWRMA 2?*

- Other challenges anticipated with consent applications in SWRMA 2 areas include:
  - Overall, a higher level of information and risk assessment would be required given that activities previously permitted or consented may no longer be.
  - Identifying all the relevant water supply sources, and the respective SWRMA zones (1-3) which the consent location intersects. However, this is more of a challenge for applicants than Councils.
  - Subsequently, working out the required mitigations for the activity (particularly direct discharges of contaminants to water), to ensure suitable protection is put in place through conditions. The same statutory obligation exists now, but the task is made more complex (and therefore more costly) due to the significant increase in supplies for which protection is required to be considered.

### **SWRMA 3 controls**

20. *Do you think any additional controls, other than broad consideration of the effects of the activity on source water, are required in SWRMA 3?*

- There needs to be integration of all the regulations, NPS, NES and HSNO. DWSP is just one aspect, environmental impact reduction, polluter pays etc. At present there is a plethora of changes going on in New Zealand, most of these for the greater good, but rushing it can cause confusion and conflicting requirements that can reduce overall effectiveness and unnecessarily impact on business / community survival.

### **Groundwater bore management**

21. *What is your view on how to address issues with bores – should it be enough to amend the NZS 4411:2001 (with reference to that standard in the NES-DW), or should greater direction be given in the NES-DW itself?*

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- NZS 4411:20011 is a standard for best practice and not 'law'. There needs to be specific provision in the NES-DW that NZS 4411:20011 must be followed (after it has been reviewed to ensure fit for purpose).

Waipā District Council supports the recommendation of the HNI to review the NZS, and considers this is long overdue, with the Groundwater Forum Regional Council Special Interest Group having requested this for years.

We support a minimum standard for the drilling of all bores to prevent aquifer contamination, regardless of whether it is currently in a source protection zone or not.

To address the issue of lack of monitoring of bores, we suggest central Government could coordinate an approach and central database/system to assist in cross-regional management of bores.

## 22. For existing bores:

- *What is your view on requiring unused bores to be decommissioned?*
- *Should bores of poor quality be required to be upgraded or decommissioned? What timeframe might be reasonable to do this?*
- *For many older bores there are no records. What sort of evidence could be used to support the ongoing use of these bores, or demonstrate they pose a low risk to the security of the aquifer?*

- Abandoned bores should be properly decommissioned under a consistent set of criteria. Council recognises there may be some practical issues involved in doing so, relating to lack of knowledge of their ownership and previous use, accessibility and cost. Consideration should be given to who pays and who is liable, for example, a family buy a home and it has an unused bore on it that wasn't declared on the sale. Again a risk based approach should be taken to prioritise bores of concern.
- Poor quality bores and bores that are no longer secure should be assessed to determine whether they should be upgraded or decommissioned. This work would need to be prioritised depending on proximity to a water supply and potential for a conduit to act as a pathway for short-circuit contamination. This work would involve substantial time and cost. In lower priority situations, it may be useful to link decommissioning with new drilling.

Upgrades should be done following a risk assessment/criticality process. Timeframe could be a sinking lid. So areas of highest risk and largest public health hazard have 2 years etc. Process to define this risk will need to be outlined: Standard risk assessments are available, that is, catchment risk assessments and bore head security. These should be used / updated rather than reinventing the wheel.

- For priority situations construction can be examined using on-site audits, base level monitoring and other methods including cameras, downhole geophysics, pressure and conductivity testing.



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Another method would be to require all applicants of groundwater take consent renewals to have a field inspection to verify location and condition of bores. This, however, would not address bores that are unused or are used for permitted water takes.

23. *What is your view on prohibiting below-ground bore heads?*

- A good idea if implemented with a risk-based approach for their removal.

24. *Regional councils are responsible for control of the use of land for the purpose of maintenance and enhancement of the quality of water in water bodies (RMA section 30(1)(c)(ii)). Do you think territorial authorities have a role in land management over aquifers, and if so, what is that role?*

- Yes, local authorities have a role to play in ensuring land use doesn't compromise drinking water quality. This ranges from land they own / operate on, district plans and implementation of Drinking Water Safety Plans.

#### **Identifying and managing activities over vulnerable aquifers**

25. *It is not clear which approach might be best for ensuring risk to vulnerable aquifers is appropriately managed. Do you think that an NES-DW is the right channel for addressing this? If not, what approach might be better?*

- NES-DW would be the appropriate tool to ensure consistencies and an all-encompassing document

26. *Would it be helpful if guidance on vulnerable aquifers was provided to support freshwater planning as the NPS-FM is given effect?*

- Yes

#### **Retrospective application of the NES-DW to existing activities**

27. *What activities do you believe the NES-DW should retrospectively apply to / not apply to, and why?*

- Activities producing primary contaminants - such as tanneries, factories etc should have retrospective applications and any other activities would take a risk based approach. Retrospective applications could be time consuming and costly, therefore a risk based approach taken to ensure needless use of resources.

28. *In your view, what are the key challenges and benefits to retrospective application?*

- The key challenges are a high level of costs to re-apply, comply and potential for legal challenges to retrospective application of new requirements. Time, resources and constraints to manage need to be considered.

Benefits of course lead to protection of source water and reduced treatment requirements, should restrictions be put in place . Also treatment plants operators

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are better aware of possible contaminants and what treatment processes are required.

### **Criteria when considering effects on source water**

29. *Do you agree with the proposed list of criteria?*

– *Are any additional criteria needed, or clarification?*

- Yes, the proposed criteria are appropriate.  
Additional considerations could include:
  - A risk based approach
  - The duration of potential impact
  - Requirement of an alert system in case of an accident or emergency that enables suppliers within SWRMA 1 and 2 to respond within a short period of time.
- Confirmation of what a Neighbourhood self-supplier means as well as small and rural water supplies considerations, that is, can they treat / remove allowed contaminants?

### **Proactive response planning**

30. *What types of activity might pose a significant risk to a water supply in an accident, emergency, or other natural event?*

- Activities that may pose a risk to a water supply in an accident, emergency or other natural event include but are not limited to:
  - Activities that use or store hazardous materials on site
  - Dairy shed effluent storage ponds
  - Farming activities (e.g. uncontrolled runoff)
  - Quarries and earthworks
- Wastewater treatment systems (e.g. spillages and emergency discharges)
  - Airports
  - By-products from fires, firefighting drills etc.

WRC has a GIS tool where users can simulate a spill event to identify any potentially affected water supplies downstream of the spill location. This type of tool is useful to manage risks as outlined above.

31. *Do you think it is reasonable to require all activities with some potential to affect source water to undertake response planning, or just those with a higher risk (likelihood and consequence)?*

- Define what some potential means otherwise far too grey an area. Risk based approach is good but need to provide guidance on how that is conducted, that is, the focus should be on higher risk activities, particularly those involving direct discharge or the potential for direct discharge of contaminants to water.

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## **Water supplier involvement**

*32. Do you agree that resource users should engage with water suppliers in consenting matters, within SWRMA 1 and 2?*

- Waipā District Council agrees with this engagement in principle; water suppliers should be made aware of activities occurring within their immediate areas. However, it seems that the proposal described on page 34 of the discussion document duplicates the notification process under ss95B and 95E of the RMA which will require any potentially affected water supplier to be notified anyway.

The practicality of the proposed engagement process may vary depending on:

- The number of potentially affected water suppliers identified
- Whether suppliers want to be engaged with. For certain activities, there may be little to no actual effect on a supply and it may be impractical to require suppliers to give written approval.

Consideration needs to be given to the size of the supply entity, otherwise there will be a massive burden to water suppliers and resource users. Perhaps a more centralised approach and hence consistencies are gained regionally rather than hundreds of different ways from each water supplier and resource user.

It would be useful for resource users to be aware of all potentially affected water suppliers in their vicinity and be able to contact them in cases of an emergency event that may impact water quality. A contingency alert system could be agreed on as part of the engagement and consenting process.

*33. What hurdles do you see in promoting this engagement with water suppliers?*

- There will be practical difficulties and significant time and costs required to engage with water suppliers, particularly where a written approval is required to enable a non-notified process.

Non standardised approach, volume of enquiries, capability and capacity to respond are other considerations that need to be taken into account.

*34. What support might small water suppliers need to effectively engage in the consent process?*

- Good guidance notes, training and as above filtering / prioritising of applications sent on.

Standardisation is important here so there is a consistent approach across New Zealand without different nuances causing frustration to resource users.

## **General matters relating to managing source-water risks**

*35. A National Environmental Standard is a regulation under the Resource Management Act 1991 (RMA) that requires, among other things, that regional councils make changes to*

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*their regional plan rules. Making these changes can add costs (e.g., financial, administrative) for regional councils.*

*– In your view, how might regional councils be affected by the NES-DW’s new requirements to change regional plan rules?*

*– Do these effects outweigh the expected benefits of better source water protection?*

- The functions and role of Regional Councils under the NES-DW are still unclear, particularly how they relate to the WSA. As options for formalising delineated areas are still being considered by MfE, it is unclear how the NES-DW will integrate with operative planning provisions and provisions being drafted to meet the requirements of the NPS-FM.

Source protection zones will create additional costs to Regional Councils, through requirements for a Schedule 1 process under the RMA, and the supporting technical and mapping needs. It is difficult to understand specific effects on Regional Councils in the absence of a detailed draft of the NES-DW.

A multitude of issues and impacts from re-consenting, consultation on changes and costs / resource availability need to be considered.

- Without knowing the costs, the current rate of contamination events, clean-up costs and social / environmental impacts, this question cannot be answered with an evidence based answer.

*36. In your view, how could the amendments to the NES-DW better align with farm plans?*

*– Is reliance on the NPS-FM, NES-F and Stock Exclusion Regulations enough to manage the long-term effects of farming activities on underlying aquifers and waterbodies?*

*– Can you identify potential duplication between the NES-DW and other regulations that control land use?*

- Not a lot of emphasis on this in the document nor how this is facilitated. Guidance on this would be good to align now. Note TLAs are best to engage with communities. Stock exclusion zones don’t account for herd size, soil type etc so Council is unsure as intensification increases that this completely addresses the issue.
- Perhaps with regards to stock exclusion regulations and NES-DW there are some inconsistencies to be addressed rather than direct duplication of custom and practice.

*37. If you are a water supplier, do you think these amendments will affect your ability to supply water (positively or negatively)? Would they influence whether you continue to provide water?*

- Improve the situation so that there is better understanding of activities taking place in the water catchment to better manage and plan. There could be benefits to small suppliers if the contaminants are controlled well so large upgrades to small treatment plants aren’t required to cope with contaminant inundation.

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- For small and rural suppliers, it will make them consider if they want to continue supplying water, not only from this legislation but the rest that are coming through.

38. *If you are a resource user, do you think these amendments will affect how you currently use your land or undertake activities? Will you have to change how you do things as a result?*

- Improve the situation so that there is better understanding of activities taking place in the water catchment to better manage and plan.
- There could be benefits to small suppliers if the contaminants are controlled well, so large upgrades to small treatment plants aren't required to cope with contaminant inundation.

#### **Which water supplies should be protected by the NES-DW**

39. *Do you think the protections of the NES-DW should apply to all registered water supplies?*

- If not, what types of supplies should be included, and why?
- In principle, Waipā District Council is supportive of the proposal that protection under the NES-DW be applied to all registered drinking water supplies to align with the WSA. Protection should be proportionate to the risk posed by activities occurring within the vicinity of a supply. Where there is uncertainty around unregistered supplies, a simple approach should be used, such as the tiered response outlined in Waipā District Council's response to question 2.

Financial assistance will be required by some of the smaller suppliers to help them comply with the proposed changes.

40. *The WSA has a registration timeframe of four years for currently unregistered supplies.*

- Do you agree with aligning application of the NES-DW with the WSA? If not, why?
- In your view, what are the challenges resulting
  - Waipā District Council is generally supportive of aligning application of the NES-DW with the WSA. However, it may not be pragmatic to give very small supplies the same priority. A tiered approach may be useful to determine appropriate methods for supplies of different scales.
  - In terms of including new registered supplies in the NES-DW framework, the issue is not their inclusion, but rather the provisions that apply to them and the implications for other activities. Additionally, a fragmented (periodic) approach to new registrations will require considerable rework and potentially a need to reassess consent and resource user provisions as they become registered.

#### **Other comments**

41. *Do you have any other comments you wish to make?*

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- Waipā District Council is in support of the general intent of the changes proposed for the NES-DW. Of concern are the tight timeframes given for consultation, therefore limited engagement from key stakeholders. To avoid unforeseen consequences interim zones could be used to enable feedback from community and industry and a practical application applied.



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