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SELWYN DISTRICT COUNCIL SUBMISSION ON WATER SERVICES BILL

1. Introduction

1.1. Selwyn District Council (the Council) thanks the Health Committee for the opportunity to provide comment on the Water Services (the Bill).

1.2. The Selwyn District has been the second-fastest growing district in New Zealand over the past 10 years, growing from 42,900 people in 2011 to around 71,500 today. The Council provides reticulated water supplies to 78% of the District's population, from 27 schemes. There are two main types of drinking water supply schemes within Selwyn: on-demand (supplying urban areas) and restricted or semi-restricted (supplying rural and rural-residential areas).

1.3. The Council supports the Government's intent to provide for a more robust and comprehensive three waters management regime that began with the enactment of the Taumata Arowai Water Regulator Act 2020 and continues with the Water Services Bill.

1.4. The Council are committed to ensuring that our residents continue to have access to safe drinking water. We have been proactively installing multi-barrier treatment on all of our water schemes, including secure groundwater takes. By the end of this calendar year all of our water supply schemes will include source water treatment.

1.5. We support a risk-based approach to drinking water supply management, implemented through drinking water safety plans. We have found this approach to be very beneficial for the Council's water supplies. In general we support the Bill and think that it will improve the safety of drinking water supplies in New Zealand.

1.6. Our submission aligns in principle with the submissions of Christchurch City and Waimakariri District Councils and as such we support the direction of their submissions. We have also discussed our submission with Timaru and Ashburton District Councils.

1.7. We note that the Bill does not include any provisions for rationalisation of the current public and private drinking water suppliers, which we understand will be developed later this year.

1.8. The Council wishes to appear in support of this submission, either in person or via audio or videoconference link. The Council will be represented by Mayor Sam Broughton, supported by a staff member.

1.9. In our submission we address three key issues as well as additional specific submission points we would like the Select Committee to consider.

2. Key issues

2.1. There are three key issues the Council wishes to draw to the attention of the Select Committee:

- The requirement for residual disinfection for any drinking water supplies that include reticulation
- The consequences for territorial authorities as a result of amendments to the Local Government Act 2002
- The compliance requirements for small drinking water supplies.

Requirement for residual disinfection

2.2. Clause 31 (1) (j) of the Bill requires that drinking water safety plans provide for residual disinfection where the drinking water supply includes reticulation, unless an exemption is obtained.

2.3. Although there is no definition of 'residual disinfection' in the Bill it presumably refers to chlorination.

2.4. The requirement for residual disinfection is of particular significance in the Canterbury region, where a number of reticulated drinking water supplies operate without chlorination.

2.5. For very small supplies, risks involved with the application and handling of chlorine may outweigh any benefits that chlorine may provide. If it is not intended that very small supplies are chlorinated, this should be clearly defined.

2.6. We support a risk-based approach to managing drinking water services. The prescriptive requirement for residual disinfection is contrary to a risk-based approach. Further, international evidence demonstrates that unchlorinated supplies with high quality infrastructure and strict hygiene processes (e.g. many supplies in the Netherlands) have disease rates four to five times lower than in the UK and USA where residual chlorination is mandatory (*International Best Practice for Non-chlorinated Drinking Water Supplies*, GHD, 2019, see Appendix A for further details). Residual chlorination can lead to complacency on the part of the water supplier and its operations and maintenance staff and contractors.

2.7. Council plans on consulting in the 2021 Long Term Plan on ratepayers' willingness to further invest in the water supply to avoid the need for chlorination. Council estimates that we would need to spend at least an extra $30 million on water infrastructure to possibly avoid chlorination of some supplies. This would fund infrastructure such as additional UV treatment, secure groundwater sources, leakage reduction in the reticulation network and upgrades of reservoirs. There would also be additional operating costs associated with this additional infrastructure. The cost of these works for a typical residential property would be about $100 a year.

2.8. Clause 57 of the Bill provides for an exemption to residual disinfection. Clause 57 (4) states that Taumata Arowai may grant an exemption from the requirement to use residual disinfection "on any conditions that Taumata Arowai thinks fit".

2.9. The wording of the Bill creates uncertainty over whether there will be transitional arrangements for any owners/operators of unchlorinated drinking water supplies subject to Clause 31 (1) (j) who may wish to apply for an exemption. For many such drinking water suppliers a requirement to chlorinate at short notice would be expensive and/or impractical and/or impossible to achieve. It is unclear whether a drinking water supplier of a supply without residual disinfection would be able to apply for an exemption, or whether the supply would first have to have residual disinfection before an exemption could be sought, given the current wording of Clauses 31 and 57. In the case of Selwyn, it would cost around

$1 million to install permanent chlorination on the currently unchlorinated schemes, which would then be redundant if an exemption was obtained.

2.10. This uncertainty makes it difficult for drinking water suppliers to engage with those they supply and to plan operationally for changes that may be required as a result of the Bill being enacted and enforced.

2.11. Under Clause 57 (3) (b), where a drinking water safety plan "does not provide for the use of residual disinfection" the drinking water supplier must demonstrate that its drinking water safety plan "will comply with legislative requirements and the drinking water safety plan on an ongoing basis". Under Clause 31 a drinking water safety plan must include a multi-barrier approach, where a multi-barrier approach is defined as having physical removal of pathogens and disinfection of the water.

2.12. The Council supports a provision for exemptions to residual disinfection, but considers that improvements are needed to the Bill to clarify requirements for suppliers whose drinking water supplies do not already include residual disinfection.

2.13. The Council recommends that:

2.13.1. The links between clauses 57 and 31 and their definitions should be reviewed to ensure that they are compatible with each other. In particular, if the Bill intends to allow for water without residual disinfection to be provided, and if this is to be demonstrated via a drinking water safety plan, then the requirements in a drinking water safety plan should also allow for water without residual disinfection. If this is not addressed the allowance for an exemption becomes meaningless, if the drinking water safety plan criteria preclude chlorine free water from being permitted.

2.13.2. Section 57 is amended to allow water suppliers to apply for an exemption from providing residual disinfection, and that only if that exemption is declined and a reasonable time has elapsed to allow for the design and installation of the necessary equipment should the requirement to provide residual disinfection come into effect.

Consequences for territorial authorities

2.14. Clauses 197 through 201 of the Bill amends the Local Government Act 2002 (LGA 2002) to replace subpart 1 of Part 7. These amendments to LGA 2002 would require territorial authorities to:

- Assess all drinking water supplies other than self-supplies within their districts.
- Work with a drinking water supplier, consumers of the supply and Taumata Arowai to find a solution if a drinking water service fails or appears to be failing.
- Take over the management and operations of a failing drinking water service, or provide water via alternative arrangements.

2.15. These provisions of the Bill go well beyond territorial authorities' current responsibilities under LGA 2002, particularly the requirement to take over water supplies that fail to meet their statutory obligations or pose a risk to public health. The Council considers that it is unreasonable for territorial authorities to be responsible for assessing not only their own public drinking water supplies but those of all applicable private drinking water supplies in their districts.

2.16. Complying with the drinking water standards and the requirements of the Bill could be quite onerous for very small private supplies, and it is likely that many of them will be found to face significant problems. The cost of taking over these small supplies and bringing them up to the standard required to achieve statutory compliance could be very expensive on a per capita basis, as they do not have the economies of scale of larger supplies.

2.17. The amendments to LGA 2002 would also require territorial authorities to assess wastewater services and "other sanitary services" within their districts, without appearing to limit these responsibilities to their own water services but include private water services as well.

2.18. We note that the Bill does not appear to anticipate future delivery service models in which territorial authorities may no longer be responsible for three waters services. As such the appropriate body to work with drinking water suppliers who fail to provide drinking water services may be the primary drinking water entity for the region, rather than the territorial authority.

2.19. The Council recommends that

- Where a territorial authority manages its own public drinking water supplies, wastewater services and other sanitary services it should be responsible only for assessing its own water services, so that the territorial authority is able to focus on meeting new requirements on their drinking water, wastewater and stormwater networks.

- Where a primary drinking water entity is responsible for one or more drinking water supplies it should be responsible for assessing those supplies under its management.

- Taumata Arowai should bear the responsibility for assessing water services that are not managed by a territorial authority or a primary drinking water entity.

Compliance requirements for small drinking water supplies

2.20. The Bill will replace Part 2A of the Health Act 1956. Under the Health Act only drinking water supplies that service at least 25 people at least 60 days a year are subject to the Act's drinking water provisions.

2.21. The Bill significantly increases the number and types of drinking water supplies that will fall under the provisions of the Bill, with the definition of a drinking water supplier expanded to mean any person supplying drinking water other than a domestic self-supplier.

2.22. The Bill indicates that regulation is to be "proportionate to the scale, complexity and risk profile of each drinking water supply". However the Bill is not clear with respect to the compliance requirements of very small drinking water suppliers (those supplying between 2 and 50 people) that were not covered under the Health Act, and how proportionality will be achieved.

2.23. For example a well that services more than one property would be required to fully comply with the New Zealand drinking water standards and have a drinking water safety plan. This appears to place significant obligation on what are likely to be private individuals operating these very small supplies.

2.24. We note that the exposure draft of the proposed new drinking water standards and rules have not yet identified requirements for very small drinking water suppliers.

2.25. The Bill does provide for a 5-year transition period for drinking water supplies serving less than 500 people for at least 60 days per year to provide Taumata Arowai with their drinking water safety plans. However, the Bill does not otherwise provide for a transitional period for compliance with the New Zealand drinking water standards, although it does provide the chief executive of Taumata Arowai with the authority to "exempt any drinking water supplier or class of drinking water supplier from compliance".

2.26. The Council recommends that the Bill provides for a transition period for compliance with New Zealand drinking water standards for small drinking water supplies. This is

particularly critical for small drinking water suppliers that were not previously subject to drinking water legislation and regulations.

3. Specific submission points

Clause 3 - Purpose

3.1. The purpose of the Bill is focused almost entirely on drinking water despite there being obligations within the Bill regarding wastewater and stormwater services. Only in Clause 3(e) is there mention of "wider water services".

3.2. The Council recommends that the Bill should make its purpose clear not only with respect to drinking water services but also wastewater and stormwater services.

Clause 5 - Interpretation

3.3. End Point Treatment

3.3.1. The definition of 'end point treatment' appears to imply that end point treatment must be provided at the 'point of supply'. Typically the point of supply will be the property boundary, whereas point of entry style treatment systems would typically be installed where the water enters a household, which would be downstream to the point of supply. Consideration is required to resolve this issue, to ensure this treatment system can practically be allowed for within the Bill.

3.3.2. The Council recommends that the Bill provide clarity in regards to where End Point Treatment systems may be located.

3.4. Officer

3.4.1. It is not clear if the definitions of 'officer' cover a private individual providing drinking water to their neighbour through a shared well. In these instances, this may be the sole person responsible for operating the water supply, but these instances do not seem to fit any of the definitions provided.

3.4.2. The Council recommends clarifying whether 'officer' includes a private individual providing drinking water to their neighbour.

3.5. Residual disinfection and Disinfection

3.5.1. Definitions are not provided for 'residual disinfection' or 'disinfection'. The term 'residual disinfection' is used in Clause 31 (1) (j) whereas in Clause 31 (2) the term 'disinfection' is used. This implies an important distinction between the two terms. Presumably 'residual disinfection' refers to maintaining a chlorine residual in the reticulated water, and 'disinfection' refers to killing or inactivation of pathogens in source water e.g. using UV, ozone or chlorine.

3.5.2. The Council recommends that definitions are included in Clause 5 in order to remove any uncertainty over the meaning of these two terms.

Clause 7 – Meaning of safe in relation to drinking water

3.6. Under Clause 7 (1) in order for drinking water to be deemed 'safe' the drinking water must be deemed 'unlikely' to cause serious risk of death injury or illness. This definition seems to contain a mixture of terms relating to risk and likelihood, which could lead to confusion.

Risk is typically considered to be the combination of the likelihood of a hazard occurring and the consequence if it did occur.

3.7. Clause 7 (3) (c) is awkwardly worded. 'Serious risk to public health' is defined in section 58 (2) and that definition could be incorporated here.

3.8. The Council recommends that the wording in sections 7(1) and 7 (3) (c) is improved.

Clause 9 – meaning of drinking water supply

3.9. Section 9 (1) (b) (ii) states that any end-point treatment device is part of a drinking water supply.

3.10. Typically end-point treatment devices would be installed where the water enters the household or under the kitchen bench, whereas the point of supply is typically at the property boundary or toby. Many end-point treatment devices have been installed by property owners e.g. water filters to remove chlorine. It seems unreasonable to expect the water supplier to take responsibility for end-point treatment devices it did not install and has no control over.

3.11. The Council recommends that end-point treatment devices are only considered part of the drinking water supply when they have been installed by, or required to be installed by, the water supplier.

3.12. Clause 9 (1) (b) (iii) states that '*any*' backflow prevention device is considered to be included as part of a drinking water supply.

3.13. Some backflow prevention devices are within buildings in order to satisfy Building Act requirements, and checked annually as part of a Building Warrant of Fitness. Other backflow devices are located at the boundary to protect the water supply for compliance with the Health Act, and in the future for compliance with the Water Services Act. These boundary devices may be privately owned, or may be owned by the drinking water supplier, depending on whether they are located on the public or private side of the property boundary.

3.14. The Council recommends that backflow prevention devices are only considered part of the drinking water supply if they are installed on the public side of the point of supply.

3.15. The Council recommends that the definition in Section 9 (1) (b) is amended to read (suggested additions are underlined):

includes –

(i) the point of supply; and

(ii) any end-point treatment device <u>installed by the water supplier, or required to be installed by the water supplier</u>

(iii) any backflow prevention device <u>on the public side of the point of supply</u>; but

Clause 12 – meaning of owner

3.16. There are a number of complex scenarios in which a source may be owned by one party, and a treatment plant, distribution system, or part of a distribution system, may be owned by another party.

3.17. The Council recommends that the meaning of 'owner' should give consideration to the fact that a drinking water supply may have different owners for different components.

Clause 13 – Meaning of Point of Supply

3.18. The definition of 'point of supply' in Clause 13 (a) includes the term 'toby', which is a colloquial term derived from slang.

3.19. The Council recommends that 'toby' is defined and that the definition of 'toby' in Clause 69G of the Health Act 1956 is transferred to the Bill.

Clause 22 – Duty to comply with the Drinking Water Standards

3.20. There does not appear to be any transitionary arrangements with regard to achieving full compliance with the current or any future revisions of the drinking water standards, with the assumption therefore being that compliance must be achieved from the first day in which the Bill is enacted.

3.21. It is understood that tight timeframes are being worked to with regard to release of draft standards shortly after enactment of the Bill. This appears to be a challenging expectation, particularly considering that a number of drinking water suppliers covered by the Bill have not been covered by the current standards, let alone a future revision that is yet to be released.

3.22. The Council recommends that

3.22.1. Consideration should be given to transitionary arrangements with regard to the lead-in timeframe for drinking water suppliers to fully comply with standards that have not yet been released.

3.22.2. Under Schedule 1 Part 1 Clause 3 provisions for lead in time to comply with future revisions of the standards are given.

3.23. Clause 22 (2) (f) requires that a drinking water supplier must "take all practicable steps" to notify Taumata Arowai and consumers of the supply when the drinking water does not comply with the drinking water standards. There may be cases where non-compliance with the drinking-water standards may be short term and of minor consequence in terms of safety and would not necessarily need to be notified to consumers. As an example, a sample for a parameter such as pH may have been taken on the incorrect date meaning that the sampling requirements of the standards may not have been met, or a guideline value for an aesthetic parameter may have been exceeded. While it is important the standards are followed with regard to sampling, this level of non-compliance may not warrant widespread informing of the public.

3.24. We note that the exposure draft of the drinking water standards by Taumata Arowai only includes maximum acceptable values and guideline values, and that treatment and monitoring requirements are included in the exposure draft of the operational rules. If the drinking water standards were adopted as proposed, this would go some way to addressing our concerns. However, the example of exceeding a guideline value would still require the water supplier to take all practicable steps to advise affected consumers.

3.25. The Council recommends that Clause 22 (f) is amended to only apply to exceedances of the maximum acceptable values in the drinking water standards.

Clause 24 – Duty to take reasonable steps to supply aesthetically acceptable drinking water

3.26. It is unclear what 'reasonably practicable steps' may entail. In some cases, costs may be very significant to achieve aesthetically acceptable drinking water, where there is not otherwise a risk to public health.

3.27. The Council considers that the term 'reasonably practical steps' should be clearly defined. We recommend that the wording from Clause 69H of the Health Act 1956 be transferred to the Bill but amended to use the terminology 'reasonably practicable steps' in place of 'practicable steps'. This would allow the severity of harm from the aesthetic non-compliance to be weighed up against the cost of achieving it.

Clause 25 – Duty to provide sufficient quantity of drinking water

3.28. Clause 25 (2) defines 'sufficient quantity' as "that sufficient to support the ordinary needs of consumers". This provides little certainty as the quantity needed is a subjective matter.

3.29. The Council recommends that 'sufficient quantity' is defined in a less subjective manner. For example according to the World Health Organisation between 50 and 100 litres of water per person per day are needed to ensure that most basic needs are met and few health concerns arise[1].

3.30. Clause 25 (4) requires that "planned restriction or interruption of supply" must not exceed 8 hours. The Council considers that the inclusion of 'restriction' in Clause 25 (4) places undue restraint on the ability to impose water use limitations (commonly referred to as restrictions) during times of water scarcity, which is routinely employed as part of water demand management. Restrictions applied in this sense should not be subject to the criteria currently written into the Bill.

3.31. The Council recommends that 'restriction' is deleted from Clause 25 (4) or that water use restrictions for demand management are otherwise permitted in Clause 25 (4).

3.32. In addition, we recommend that consideration is given to how to address the duty to provide sufficient water (Clause 25) when there is the potential for it to conflict with Te Mana o Te Wai (Clause 14 of the Bill), for example a drinking water supply sourced from small streams with flow levels influenced by weather and any consent conditions to take water from those streams.

Clause 26 - Duties where sufficient quantity of drinking water at imminent risk

3.33. Clause 26 (1) (a) requires that Fire and Emergency New Zealand is notified where the quantity of drinking water is at imminent risk.

3.34. The Council recommends that this requirement should only apply in gazetted fire-fighting areas, as fire-fighting provisions are not required to be provided by all drinking water supplies, particularly small rural supplies where there is not sufficient capacity from the public supply.

Clause 27 – Duty to protect against risk of backflow

3.35. Clause 27 (2) (b), which allows the drinking water supplier to require a property owner to install a backflow prevention device, is supported. The Council considers that this clause will assist in achieving compliance with backflow criteria. Under the Health Act 1956 there are challenges with managing risk of backflow, where a supplier can install a device on the public side of the point of supply, but cannot require a property owner to install a device on the private side. In some cases it is impractical to install a backflow prevention

[1] WHO. Guidelines for Drinking-water Quality: fourth edition incorporating the first addendum. Geneva, World Health Organization, 2017 (page 84) https://www.who.int/publications/i/item/9789241549950

device on the public side of the point of supply. This section appears to address this issue, and is supported by the Council.

3.36. However, section 27 does not include the current requirement of Clause 69ZZZ (4) of the Health Act to test each backflow prevention device in its network each year, and the provision to require the property owner to pay for the cost of the test. It is important that backflow prevention devices are tested annually by an appropriately qualified person, to ensure that they are functioning as intended to prevent contamination of the water supply.

3.37. The Council recommends that the requirement of Clause 69ZZZ (4) of the Health Act to test each backflow prevention device in its network each year, and the provision to require the property owner to pay for the cost of the test, are added to the Water Services Bill.

Clause 30 – Owner must have a water safety plan

3.38. Clause 30 (1) requires that all owners of drinking water supplies must prepare drinking water safety plans.

3.39. The current Water Safety Plan Framework and Handbook does not appear to be fit for purpose for small suppliers to follow, taking into account the need for their requirements to be proportional to scale, complexity and risks as per Clause 31 (1) (a).

3.40. The Council recommends that consideration is given as to how drinking water safety plan requirements will practically be met both by small suppliers, and also by Taumata Arowai in reviewing small suppliers' drinking water safety plans, given the level of detail and effort required under the current Framework. Council recommend a clause under Transitionary Arrangements, requiring Taumata Arowai to create a drinking water safety plan template for small supplies. This template should be prepared prior to when drinking water safety plans are required to be submitted.

Clause 31 – Drinking water safety plans

3.41. Clause 31 (2) states that a multi-barrier approach must be used to implement the drinking water safety plan, which includes the requirement that a drinking water supplier must 'remove particles, pathogens, chemical and radiological hazards from the water by physical treatment'.

3.42. There are many ways to achieve multiple barriers to safe drinking water without removing particles, pathogens and chemical and radiological hazards by physical treatment. It is unlikely there would be any drinking water supply in the country that removes radiological hazards by physical treatment, but rather drinking water sources are selected and managed to ensure radiological hazards are not present. As an example of commonly accepted treatment barriers, there may be barriers preventing contaminants entering the source water without any physical removal of particles, chemicals or radiological hazards. The focus should be on having multiple barriers to mitigate against these contaminants entering the drinking water supply, rather than having physical removal of all contaminant types, which is highly impractical at any scale, let alone the scale of a public water supply.

3.43. The Council recommends that Clause 31 (2) (b) is reworded to say "ensure that particles, pathogens, chemical and radiological hazards are not present in the source water, or are removed by treatment or inactivated by disinfection; and". This suggested change would also negate the need for Clause 31 (2) (c).

Clause 42 – Source water risk management plans

3.44. Clause 42 (2) (d) requires that source water risk management plans have regard to values identified by local authorities under the National Policy Statement for Freshwater Management that relate to the drinking water source. Also relevant to drinking water source protection is the National Environmental Statement for Sources of Human Drinking Water.

3.45. The Council recommends that the National Environmental Statement for Sources of Human Drinking Water is added to Clause 42 (2).

Clause 43 – Suppliers to monitor source water quality

3.46. Clause 43 requires that drinking water suppliers must monitor the quality of the sources of their drinking water supplies. Regional councils also have a responsibility to monitor water quality (e.g. section 35 (2) of the Resource Management Act 1991 requires regional councils to monitor the state of the environment).

3.47. The Council recommends that Clause 43 links to requirements under other legislation and regulation requiring regional councils to monitor water quality of drinking water sources.

Clause 45 – Regional councils to publish information about source water

3.48. Drinking water source information can be generated and/or held by parties in addition to regional councils. For example Selwyn District Council operates a robust drinking water sampling programme, with the data shared with Environment Canterbury.

3.49. The Council recommends that the Bill is amended to reflect that assessments of the effectiveness of regulatory and non-regulatory interventions by regional councils should also be done in conjunction with drinking water suppliers rather than in isolation.

Clause 51 –Templates and models

3.50. Given the potential challenges with the preparation and review of drinking water safety plans for small suppliers, the need for simple templates proportional to the supply size is a necessity, and should be given priority by Taumata Arowai.

3.51. The Council recommends a sub-clause to require preparation of templates and models for small drinking water supplies in advance of compliance deadlines for affected drinking water supplies.

Clause 55 – Duty to renew annual registration and notify changes

3.52. Clause 55 (1) requires registered drinking water suppliers to apply for renewal of registration annually. This is not required by the Health Act 1956 and seems to be an unnecessary requirement. Instead it would be more efficient to require registered drinking water supplies to confirm any details regarding any changes to the supply (i.e. changes to size, ownership, etc.) when they occur.

3.53. The Council recommends amending Clause 55 (1) to only require registered drinking water suppliers to immediately advise Taumata Arowai of any changes to their registration details.

Clause 61 – Special powers of Taumata Arowai during drinking water emergency

3.54. Clause 61 (2) (f) and (g) allows Taumata Arowai to direct territorial authorities to supply drinking water in an emergency. Given that territorial authorities may not be the suppliers of drinking water following the Three Waters Review, the Council considers that it is inappropriate to refer to territorial authorities in this clause.

3.55. The Council recommends that 'designated drinking water supplier', 'primary drinking water entity', or a similar term, replace 'territorial authority' in Clause 61 (2) (f) and (g).

Clause 72- Duty to use accredited laboratory to analyse water

3.56. This clause requires that drinking water suppliers use accredited laboratories to analyse source water, raw water and drinking water for any monitoring requirements. It is unclear what parameters should only be analysed by an accredited laboratory as opposed to other generally accepted methods such as handheld analyser or online analyser.

3.57. The Council supports a requirement for use of accredited laboratories for most parameters but would like the wording expanded to include calibrated online and handheld instruments that have been checked using a secondary standard.

3.58. The Council recommends that Clause 72 (1) is amended to read:

A drinking water supplier must use an accredited laboratory, or a calibrated online or handheld analyser checked with a suitable standard, to analyse source water, raw water, and drinking water as part of any monitoring requirements in compliance rules or a drinking water safety plan.

Clauses 77 and 78 – Criteria for accreditation and Application for accreditation

3.59. These two clauses are concerned with the accreditation of laboratories that analyse source water, raw water and drinking water.

3.60. Currently International Accreditation New Zealand (IANZ) has a drinking water testing laboratory accreditation programme, operated for the Ministry of Health.

3.61. It is unclear whether clauses 77 and 78 are intended to create a new laboratory accreditation scheme or if the IANZ scheme is retained but operated on behalf of Taumata Arowai rather than Ministry of Health. If the former, it is unclear whether IANZ accredited laboratories would be required to undertake additional a separate accreditation process for water.

3.62. The Council recommends that Sections 77 and 78 are amended so that it is clear whether laboratories currently accredited under the IANZ programme will be required to undertake a separate accreditation process for water testing, or if their current IANZ accreditation will carry forward once the Bill is enacted, without the need for an additional accreditation from some other accrediting body.

Clause 81 – Register of accredited laboratories

3.63. Laboratories may be accredited to perform some analytical tests for water but not others. It is critical that drinking water suppliers use laboratories that are registered for the analytical tests needed.

3.64. The Council recommends that the register of accredited laboratories should include what analyses and parameters the laboratories are, and are not, accredited to perform.

Clause 139 – Network registers

3.65. This clause requires Taumata Arowai to establish and maintain a register for wastewater networks and a register for stormwater networks. There is no definition of either wastewater network or stormwater network in the Bill, and the clause does not indicate any limit to the type, size, ownership or other factor for either wastewater or stormwater networks. For example, there are a number of houses that may have a shared driveway, and shared stormwater or sewer laterals. It is assumed these are not intended to be included in the requirements for Clause 139, but there needs to be a scale at which a group of houses connected does become a network. It is also unclear whether a stormwater network is a considered to be a network of stormwater pipes and/or drains or whether retention basins and similar are intended to be included.

3.66. The Council recommends that definitions of wastewater network and stormwater network are added to the Bill to provide clarity as to what constitutes a wastewater and stormwater network, to allow this clause to be satisfied.

Offence to contaminate raw water or pollute a water supply

3.67. Section 69ZZO of the Health Act 1956 makes it an offence if a person knowingly or recklessly does any act that is likely to contaminate any raw water or pollute any drinking water. There is no such offence in the Water Services Bill. It is very important that water sources and water supplies are protected from deliberate or reckless behaviour which could contaminate them.

3.68. The Council recommends adding the offence of contaminating raw water or polluting a water supply in section 69ZZ of the Health Act to the Bill.

Non-potable reuse

3.69. Warmer, drier weather due to climate change will increase the demand for water at the same time as diminishing the availability of source water. The National Policy Statement (NPS) for Freshwater Management 2020 sets out a hierarchy of obligations in Te Mana o Te Wai that prioritises first the health and well-being of water bodies and freshwater ecosystems over the use of water for drinking water and other uses. We need to look for other sources of water in areas where water sources are vulnerable to climate change and where it may be difficult to obtain sufficient fresh water from local sources.

3.70. Selwyn District Council are in the process of centralising wastewater services for the district and improving the quality of the treatment process. This work will create future opportunities for water re-use, for example for irrigation of some of Council's parks and reserves. The Council would like Taumata Arowai to develop the necessary regulations to enable non-potable reuse of treated wastewater, in collaboration with other government agencies, water suppliers and tangata whenua. The Council would be happy to assist Taumata Arowai in developing these regulations.

3.71. The Council recommends that the Bill is expanded to include a requirement for Taumata Arowai to develop regulations for non-potable reuse of treated wastewater.

4. Summary and conclusions

4.1. The Council remains committed to ensuring our residents have access to safe drinking water. We favour a risk-based approach, as demonstrated through robust drinking water safety plans and source water risk management plans.

4.2. The Council has identified three key issues, and provided commentary on them:

- The requirement for residual disinfection for any drinking water supplies that include reticulation
- The consequences for territorial authorities as a result of amendments to the Local Government Act 2002
- The compliance requirements for small drinking water supplies.

4.3. We have also provided comments and recommendation on a number of other matters in the Bill. In brief, the Council supports:

4.3.1. Initiatives aimed at a more robust and comprehensive three waters management regime

4.3.2. Key points of submissions of Christchurch City Council and Waimakariri District Councils

4.3.3. Exemptions to residual treatment, but with improvements to clarify transitional requirements for suppliers whose drinking water supplies do not already include residual disinfection.

4.3.4. Addressing backflow prevention in Clause 27 (2) (b).

4.3.5. Requiring use of accredited laboratories for water analyses.

4.4. The Council recommends

4.4.1. Reviewing the links between sections 57 and 31 and their definitions to ensure that they are compatible with each other.

4.4.2. Amending Section 57 to allow water suppliers to apply for an exemption from providing residual disinfection, and that only if that exemption is declined and a reasonable time has elapsed to allow for the design and installation of the necessary equipment should the requirement to provide residual disinfection come into effect.

4.4.3. Amending the changes to the Local Government Act 2002 so that assessments of water services by a territorial authorities are limited to those services provided the territorial authority. Where a primary drinking water entity manages one or more drinking water supplies the entity should be responsible for assessing the water services it manages. Water services not provided by or managed by a territorial authority or primary drinking water entity should be assessed by Taumata Arowai.

4.4.4. Funding is provided by Taumata Arowai to territorial authorities or water services entities to enable them to bring private supplies up to the standard required to achieve statutory compliance.

4.4.5. Editing the purpose of the Bill, to clearly include wastewater and stormwater.

4.4.6. Clarifying the location of ‘end point treatment’

4.4.7. Clarifying whether ‘officer’ includes a private individual providing drinking water to a neighbour.

4.4.8. Adding definitions of ‘residual disinfection’ and ‘disinfection’.

4.4.9. Improving the wording of section 7 (1) and 7 (3) (c) to avoid confusion.

4.4.10. Amending the definition in Section 9 (1) (b) to read:

includes –

(i) the point of supply; and

(ii) any end-point treatment device installed by the water supplier, or required to be installed by the water supplier

(iii) any backflow prevention device on the public side of the point of supply; but

4.4.11. The meaning of 'owner' should recognise that a drinking water supply may have different owners for different components

4.4.12. The term 'toby' in Clause 12 be defined and should use the definition from the Health Act 1956 Clause 69G.

4.4.13. Consider transitional arrangements for compliance for those suppliers not previously covered by standards, and for small drinking water supplies.

4.4.14. Adding provisions for lead in time to comply with current and future revisions of the standards to Schedule 1 Part 1 Section 3.

4.4.15. Amending Section 22 (2) (f) to only apply to exceedances of the maximum acceptable values in the drinking water standards.

4.4.16. defining 'reasonably practicable steps' using the definition of 'practical steps' in the Health Act 1956 Clause 69H, but amended to use the terminology 'reasonably practicable steps' in place of 'practicable steps'.

4.4.17. Provide a less subjective meaning of 'sufficient quantity' in Clause 25.

4.4.18. Deleting 'restriction' from Section 25 (4) or otherwise permitting restrictions for demand management.

4.4.19. Considering how Te Mana o Te Wai may conflict with Clause 25.

4.4.20. Amending Clause 26 to apply only for gazetted fire-fighting areas

4.4.21. Adding the requirement of Clause 69ZZZ (4) of the Health Act for a water supplier to test each backflow prevention device in its network each year, and the provision to require the property owner to pay for the cost of the test.

4.4.22. Considering how small drinking water suppliers will meet requirements for drinking water safety plans under Clause 30.

4.4.23. Amend Clause 31 (2) (b) to "ensure that particles, pathogens, chemical and radiological hazards are not present in the source water, or are removed by treatment or inactivated by disinfection; and", with a subsequent deletion of Clause 31 (2) (c).

4.4.24. Amend Clause 42 (2) to add the National Environmental Standard for Sources of Human Drinking Water.

4.4.25. Recognising requirements under other legislation and regulations for regional councils to monitor water quality of drinking water sources, in clause 43.

4.4.26. Amending Clause 45 to reflect that regional councils' assessments should be done in conjunction with drinking water suppliers rather than in isolation.

4.4.27. Adding a sub-clause to Clause 51 to require provision of templates and models for small drinking water supplies in advance of compliance deadlines.

4.4.28. Amending Clause 55 (1) to only require registered drinking water suppliers to immediately advise Taumata Arowai of any changes to their registration details.

4.4.29. Replacing ‘territorial authority’ with ‘designated drinking water supplier’ or similar term in Clause 61 (2) (f) and (g), to recognise that a different entity may be responsible for emergency water supply under a future water services delivery model.

4.4.30. Providing clarity in Clause 72 over which parameters or types of parameters must be analysed by an accredited laboratory.

4.4.31. Amending Sections 77 and 78 to clarify whether laboratories currently accredited under IANZ accreditation programme must undertake a separate accreditation process, or if their current accreditation will carry forward once the Bill is enacted in a similar way to approved drinking water safety plans.

4.4.32. Including which analyses and parameters the laboratories are accredited to perform in the register of accredited laboratories.

4.4.33. Clarifying the definitions ‘wastewater network and stormwater network’ as to what constitutes a wastewater and stormwater network in terms of size and scale.

4.4.34. Adding the offence of contaminating raw water or polluting a water supply in section 69ZZ from the Health Act.

4.4.35. Expanding the Bill is expanded to include a requirement for Taumata Arowai to develop regulations for non-potable reuse of treated wastewater.

Thank you for the opportunity to provide this submission.

For any clarification on points within this submission please contact Murray Washington.

Yours sincerely

Samuel Broughton
Mayor of Selwyn District

Appendix A

International Best Practice for Non-chlorinated Drinking Water Supplies (GHD, 2019)

Summary

The purpose of the report was to provide Selwyn District Council with an understanding of what best practice looks like overseas for water supplies that do not routinely chlorinate. SDC requested a comparison between international best practice and the Council water supplies along with a cost estimate to implement best practice.

The report focused on the Netherlands. There are eleven Dutch water supply companies supplying drinking water to approximately 17 million people. At the time of the report approximately 85 per cent of all Dutch water supplies do not use residual chlorination within their pipe networks, except in the case of a short-term emergency contamination event. In Switzerland that figure is 70 per cent and in Germany it is 50 per cent.

The report states that the Dutch take a two-pronged approach:

- contamination has to be prevented in all three stages of supply - source, treatment and distribution)
- chemical treatment should be kept to a minimum

The approach taken by the Dutch has resulted in a rate of waterborne disease 4 to 5 times lower than in the UK and USA where residual treatment is mandatory.

The key finding of this report was that the total cost of implementing all actions required to align with international best practice is approximately $30 million. In addition there will be increased ongoing operational costs to maintain water supplies at this best practice level.

The full report is available on request.