

Embargoed until 12pm, 31 May 2022

Rural Supplies Technical Working Group Report to the Department of Internal Affairs

31 May 2022



Foreword

The Rural Supplies Technical Working Group was established in response to feedback from the sector during the eight-week engagement period requested by Local Government New Zealand.

The rural sector has unique and varying concerns. Our task was to listen to and understand the concerns from the rural sector about the Government's reform plans and report back to the Department of Internal Affairs with recommendations to address these.

Our group's members are themselves drawn from rural communities and represent a cross section of the sector. As a group, we've aimed to produce recommendations that are practical and fit our shared values.

Over the last three months, the Working Group has considered issues around the Three Waters reform and its possible interaction with the many and varied rural water supplies throughout the country.

The Three Waters reform is focused on the aggregation of many council-owned water services into four new water services entities, which will be collectively owned by councils on behalf of the communities they serve.

It is important to note that rural supplies which have no council ownership will not be affected by the current reform. Privately owned supplies will continue to operate independently following reform under their current governance and management arrangements.

The Working Group was also asked to consider the impact of recent regulatory changes on all rural supplies whether they are council owned, privately owned, or in the case of marae and papakāinga, owned by hapū or iwi.

Considering the wide range of rural supplies, with diverse governance structures, ownership arrangements and degree of sophistication, it quickly became apparent to us that one size does not fit all.

It is clear there is a broad spectrum of needs across the tens of thousands of rural supplies or schemes that are spread across the country.

After canvassing our rural communities, we were able to sharpen our focus.

While the wider service delivery reforms focus on all three waters—drinking water, wastewater and stormwater—the relevance of reform for those living in our rural communities is specifically around drinking water.

For many rural New Zealanders, drinking water comes from the same water supply that sustains their livelihoods, supporting stock health, crops and the viability of their business operations. There is often a greater connection between rural water users and their supply through direct involvement in the governance and management of water schemes.

As the group progressed its work, the key issues crystalised around ownership, governance, pricing and accountability. These matters are the focus of our recommendations.

We wish to acknowledge the efforts of the Working Group on Representation, Governance and Accountability whose report and recommendations were of assistance in establishing the foundations for our considerations.

As a group, we are confident that our recommendations provide a framework for the recognition of the particular interests of our rural communities through the reform process.

We also acknowledge that further work is required to address the needs of our rural marae and papakāinga.

While as a country we have to accept the reality of the water services challenges we presently face and the need for fundamental change, as a group our consideration has always been driven by the underlying aspiration of ensuring safer, better and affordable drinking water services for all rural New Zealanders.

From a personal perspective, it has been a privilege to have had the opportunity to contribute to the reform process through this working group.

I hope you will appreciate the magnitude of the task, and the need to consider a wide range of individual needs and circumstances. This is not a one-size-fits-all task, and I look forward to working alongside Government and the new water services entities to accommodate a range of rural water schemes.

We thank you for taking the time to analyse our report and recommendations and remind you that this is only one step in the process; the opportunity for further input and discussions exists in the coming months.



Bryan Cadogan
Chairperson

Executive Summary

This paper sets out the advice to the Department of Internal Affairs (**DIA**) from the Rural Supplies Technical Working Group (**the group**) on the proposed new water services entities legislation. The primary focus of this report relates to **council-owned** mixed-use rural supplies.

We found that users of mixed-use rural supplies have concerns that relate to Three Waters services delivery reform, and implications for the ongoing ownership and management of mixed-use rural supplies. In particular, we found:

- some users of council owned mixed-use rural supplies are concerned about the implications of transfer of their schemes to water services entities for their ongoing operation and management, and for rural users to continue to have input to management and operational decisions. This is especially so for schemes that provide water for stock and irrigation purposes, with farmers concerned about the ongoing security of supply;
- there is also concern about the future cost and prices that rural communities will pay for water services, with some believing that they will pay increased prices to subsidise the costs of water services to urban consumers;
- some owners of private schemes mistakenly believe that their mixed-use rural supplies will be taken by government and water services entities or transferred to Māori ownership.

More generally, the group found that many owners of smaller and previously unregistered and unregulated mixed-use rural supplies are concerned about the implications of water services regulation, with many believing that new regulatory requirements have already or are about to apply, rather than in four to seven years.

Many owners of **rural supplies** (including council owned rural supplies) are concerned that regulatory requirements will be disproportionate to risk and will require treatment of large volumes of water for stock and agricultural purposes.

The group further found that historic inequities in funding and support for water services by both councils and government mean that many marae and papakāinga drinking water supplies require substantial investment in order to provide consistently safe drinking water.

Transfer of council-owned mixed-use rural supplies

The group recommends that all council owned mixed-use rural supplies should transfer to the water services entities. This is because water services entities, rather than councils, will have the people, resources and expertise to operate these schemes into the future. However, we recommend an ability, in specific

and limited circumstances, for some mixed-use rural water supplies to transfer into user ownership rather to a water services entity.

Factors to be considered in this decision include the criticality of the drinking water supply to consumers, the size of its drinking water customer base, the predominant use of the scheme (whether it be agricultural or human drinking water), and the capability, capacity and financial ability of user owners to sustainably supply safe drinking water to consumers.

The group recommends a five-step process be implemented to determine if a mixed-use rural supply transfers to its users. Where ownership of a mixed-use rural supply is unclear, the group recommends that a process be established to enable case-by-case consideration and engagement between affected parties.

Drinking water regulatory compliance

The group agrees that rural consumers should enjoy access to safe drinking water and that regulation is needed to provide assurance. In doing so, we advocate for an appropriate risk-based approach to drinking water regulatory compliance. We recommend that Taumata Arowai advance work to develop multiple compliance pathways for rural and small drinking water supplies as quickly as possible.

We recommend the Department of Internal Affairs and Taumata Arowai work closely together and undertake further engagement and analysis on the scope and scale of the small and rural supply issues and develop options to resolve them based on cost effective solutions including end-point treatment.

In relation to particular concerns about chlorine requirements in reticulated networks, the group recommends that Taumata Arowai develop options to not chlorinate in certain drinking water supplies to reduce the regulatory burden for small and rural drinking water suppliers.

Rural marae and papakāinga

The group has very strong views that historic inequities in rural marae and papakāinga drinking water and wastewater services need to be addressed. We note that this additional support needs to be enduring (i.e. not just a one-off funding boost).

We recommend that, when established, the water service entities prioritise the assessment of marae and papakāinga (including how to give effect to Te Mana o te Wai), along with coordinated agency work to address the geospatial information gap.

We also recommend that the government establish an additional working group to consider the issues around rural marae and papakāinga as soon as practicable.

Pricing and charging

The group is largely supportive of the direction that the reforms have signalled on pricing and charging. The group makes some specific recommendations on pricing and charging. These include:

- no cross-subsidies between different three waters services i.e. drinking water, wastewater or stormwater services;
- rural service users should generally not be subsidising urban service users;
- consultation with rural users on pricing and funding plans for water services entities, including the types of charges proposed (e.g. a mixture of fixed and volumetric charges) must be undertaken before the entities 'go live' and before domestic volumetric pricing is introduced to new areas;
- any use of geographic price averaging should be limited to the same service and similar 'classes' of user so that price averaging between agricultural and horticultural water supply and domestic drinking water supply will not occur;
- there be some exceptions to geographic averaging, including, where communities have sought a different level of service than is provided elsewhere in the water services area;
- the rate of increase in prices to achieve geographically averaged prices should be limited to reduce price shocks.

Background

1. In October 2021, Cabinet agreed to progress the three waters reforms so that drinking water, wastewater, and stormwater services will be provided by four publicly owned water services entities from 1 July 2024. These water services entities will take over the responsibilities for water service delivery from territorial authorities.
2. The government received significant feedback on the implications of water services reform for rural supplies. Following that feedback, the Three Waters Rural Supplies Technical Working Group (the group) was established, comprising members with experience in mixed-use rural supplies, as well as rural marae and papakāinga drinking water supplies.
3. The role of the group was to provide advice to the Department of Internal Affairs (DIA) to support policy development and implementation related to rural drinking water supplies and rural communities.
4. The group was also required to consider general issues for rural drinking supplies in complying with regulatory requirements for safe drinking water, regardless of who owns the supply.

Membership

5. The group comprises Independent Chairperson Bryan Cadogan (Clutha District Council Mayor), Deputy Chairperson Bill Bayfield (Taumata Arowai Chief Executive), and the following members:
 - Tony Lepper, Earnsclough Irrigation Company Managing Director, Central Otago
 - Clive Manley, Ruapehu District Council Chief Executive
 - Craig Rowley, Waimate District Council Mayor
 - Max Baxter, Ōtorohanga District Council Mayor
 - Rob Phillips, Southland Regional Council Chief Executive
 - Dr Charlotte Severne, Te Tumu Paeroa Māori Trustee
 - Traci Houppapa, Federation of Māori Authorities Chair
 - Bonita Bigham, Taumata Arowai Te Puna Member, and South Taranaki District Council Community Board Member
 - Stephen Woodhead (Independent).
6. Observers included representatives from:
 - Taituarā - Kath Ross, on behalf of Karen Thomas, Chief Executive
 - Local Government New Zealand - Nicci Wood
 - Ministry for Primary Industries - Jane Chirnside.

7. Terms of reference¹ were developed to define the scope of the group's work. They set out the approach and topics to be considered by the group; they were informed by feedback received through engagement on the reform in late 2021.
8. The group first met on 2 February 2022 and have met regularly up to May 2022. Summaries of group meetings can be found on the DIA website².

Two-stage approach to the work

9. The group adopted a two-stage approach to working through the issues identified in the Terms of Reference. The first stage focused on providing advice to DIA to inform policy advice for the development of legislation to implement the service delivery reforms (known as Bill 2)³. The second stage looked at regulatory and implementation matters that are less time critical.
10. At the first stage the group looked at a range of matters, including:
 - a. consideration of council roles in the ownership and management of existing mixed-use rural supply operations (council-owned or not), consideration of whether, and in what circumstances, they would transfer to a new water services entity, and if so, how (for example, development of transfer principles to guide transition activity)
 - b. familiarisation with the characteristics of mixed-use rural supplies including their ownership, governance and support from councils and the implications of new regulations under the Water Services Act for them (i.e. What will the new regime mean generally for rural drinking water suppliers?)
 - c. consideration of future roles and functions of water service entities to support rural communities, e.g. statutory obligations (on new entities, councils) to communities served.

Scope of work

11. The group identified issues and possible options related to:
 - a. the transfer of council-owned rural schemes to the water services entities;
 - b. drinking water and wastewater services to marae and papakāinga;
 - c. other matters relating to rural drinking water supplies, regardless of ownership.
12. The group considered:
 - a. the characteristics of mixed-use rural supplies and council roles in their ownership, governance and operation and the implications for the establishment of water services entities;

¹ See [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme-2022/\\$file/04_Rural-Supplies-Technical-Working-Group-FINAL-ToR_Feb-2022.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme-2022/$file/04_Rural-Supplies-Technical-Working-Group-FINAL-ToR_Feb-2022.pdf).

² See <https://three-waters-reform-programme-working-groups-dia.govt.nz>.

³ Water services reform is being provided through two pieces of legislation – Bill 1 which will provide for the establishment of the Water Services Entities, and Bill 2 which will provide the detail of their specific functions, duties and powers.

- b. principles to guide the transfer of council-owned schemes where the primary purpose of the supply is for stock water, rural water races, and/or irrigation;
 - c. the management, duties and obligations (including financing) of rural drinking water suppliers;
 - d. three waters services to rural marae and papakāinga;
 - e. the impact, if any, the reforms will have on those rural communities that do not currently receive three waters services from a council provider;
 - f. the National Environment Standards for Sources of Human Drinking Water, and implications on rural communities and rural drinking water suppliers;
 - g. the service level of three waters services for rural communities.
13. It is also important to note that the recommendations of the [Working Group on Representation, Governance and Accountability](#) of new water services entities, and the response to those recommendations by the Government, have been taken into account by the group.

Mixed-use supplies

14. Mixed-use rural supplies form an important part of the delivery of drinking water, irrigation, and stock water for many rural communities. Often, mixed-use rural supplies provide water at a restricted volume (trickle feed) to a point of supply storage tank on consumers' properties. These supplies primarily provide stock water, or irrigation water in rural areas at an agreed quantity over a period of 24 hours but can also provide water for drinking to small rural communities. The water provided by a rural agricultural water supply may or may not be safe to drink. However, if the water is to be consumed by people in households or other buildings provided with water from the supply, it needs to be safe and comply with the standards for safe drinking water provided under the Water Services Act 2021.
15. It may not be economical to treat all the water in a rural agricultural water supply to the level required by the Standards. End-point treatment systems provide a way of ensuring that households and other buildings supplied from a rural agricultural water supply can receive water that is safe to drink, without the need to treat all water in the supply.
16. The group surveyed councils across the motu to identify the number, size and nature of these mixed-use rural supplies. Based on the survey responses from 33 councils, the group estimates that there are approximately 100 council-owned mixed-use rural supplies in Aotearoa.

Part A: Implications of Service Delivery Reform for Council-owned, Mixed-use rural supplies

17. The focus of this part of the report is on approximately 100 council-owned, mixed-use rural supplies and whether these should transfer to water services entities. This part of the report does not relate to the tens of thousands of privately owned drinking water supplies.
18. We recognise that there is concern from some council-owned, mixed-use rural supply users about the transfer of these schemes to a water services entity, particularly where schemes provide water for agricultural purposes such as for stock or irrigation. Here, there is a high degree of involvement by scheme users in the management and/or operations; this work is not done solely by the council.
19. Some council-owned mixed-use rural supply users are concerned about perceived loss of community voice and local involvement, control over management decisions, as well as uncertainty about the future management of the scheme and supply of water for agricultural purposes, and the methods that water services entities will use to price and charge for the water.
20. In relation to the proposed legislation, specific themes that the group have sought to provide policy advice on are:
 - a. Transfer of council-owned rural schemes/assets to water services entities;
 - b. Pricing and charging for transferred council-owned rural schemes;
 - c. Governance, ownership and management of rural schemes.
21. The group's views on each of these options is outlined below, followed by recommendations on each.

Transfer of rural water schemes/assets

22. The group recognises that following the establishment of water services entities councils may no longer have the capacity, capability and financial resources to manage mixed-use rural supplies that remain in their ownership.
23. Responses from a survey of councils found that many councils agreed that rural schemes should transfer to the new water services entities. Some survey responses included:

"We are not aware of any compelling reason not to include these schemes in the proposed transfer to the new water service entity."

"It is the view of Council that these supplies should be transferred to the new water entity, if the reforms proceed as indicated."

24. Council-owned, mixed-use rural supplies have a variety of governance and management arrangements that need to be considered in the context of the proposed transfer arrangements.

Transfer of council-owned mixed-use rural supplies

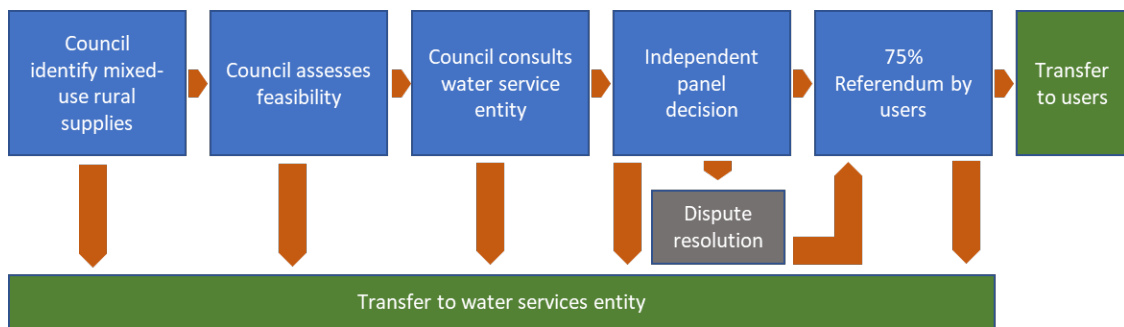
25. It is unlikely that councils will continue to hold the technical capability and capacity to manage mixed-use rural supplies after 1 July 2024. As a result, it will not be feasible for councils to retain any ownership, management or other direct responsibilities relating to mixed-use rural supplies.
26. The group recommends that, in general, all council-owned mixed-use rural supplies transfer to the water services entities in line with the general approach to the service delivery reforms.
27. To avoid doubt, the group's recommendations regarding the transfer of mixed-use rural supplies to water services entities only apply to council-owned mixed-use rural supplies, and do not apply to privately owned supplies. Private supplies will continue to be owned privately after establishment of water services entities.
28. The group notes that many council-owned supplies have users with a high degree of involvement in the day-to-day management or operations, and that users will likely wish to remain in control of these mixed-use rural supplies.
29. In cases where mixed-use rural supplies are critical to agricultural production and users wish to retain full control over the schemes, it may not be appropriate for council-owned mixed-use rural supplies that primarily supply water for agricultural and horticultural purposes to transfer to water services entities. The group recommends that in these cases users have the ability to seek direct ownership and operational control of council-owned, mixed-use rural supplies. This would mean that some mixed-use rural supplies could transfer and be formally owned, managed and operated by the rural communities they serve. If these supplies did not transfer to water services entities, the supply of safe drinking water would be a critical requirement.

Process for proposed transfer to users

30. The group considers that the vast majority of mixed-use rural supplies should transfer to entities, and that most users will not have the capability or resources to directly own and operate these schemes.
31. It is important that both councils and mixed-use rural supplies' users have certainty about what the operating arrangements after 1 July 2024. A process to consider, on an exceptions basis, the feasibility of transferring mixed-use rural supplies to users is outlined below.
32. The group recommends that several factors be used to determine whether a council-owned, mixed-use rural supplies can transfer to users. These factors include:
 - a. the ownership of the scheme, to ensure that it is a council-owned, mixed-use rural supplies;
 - b. the criticality of the drinking water supply to consumers, and whether there are alternative supply arrangements;

- c. the size of its drinking water customer base, and the number of people dependant on the scheme for drinking water;
- d. the predominant use of the scheme;
- e. the capability, capacity and financial ability of an alternative owner/operator to ensure safe drinking water is supplied to consumers if it opts out, with an awareness of the obligations that must be met by the supply, and evidence that they will be met.

33. To provide ongoing certainty, the group notes that any consideration of transferring mixed-use rural supplies to their users should occur well before 1 July 2024. The high-level process for considering the transfer of council-owned, mixed-use rural supplies to users is illustrated below.



34. The group recommends that councils take a lead role in the consideration of whether mixed-use rural supplies should transfer to their users.

35. The group recommends that councils identify whether any council-owned, mixed-use rural supplies should be eligible to be transferred to their users. This initial step would be based on the council's assessment against a set of prescribed criteria listed in paragraph 32 above.

36. Some of these factors, such as the number of drinking water connections, should be considered as threshold criteria (for example, if the number of drinking water connections supplied is higher than a certain number, the mixed-use rural supplies should transfer to the water services entity), while others (such as capability) would be more subjective and would need to be determined using judgement.

Feasibility Assessment

37. The group recommends that councils consult with the representatives of the mixed-use rural supplies' users, Taumata Arowai and other rural supply technical experts about the ability of the mixed-use rural supplies to continue to meet all relevant regulatory requirements.

Consultation with water services entities

38. The council will consult with the water services entities if it is satisfied that the mixed-use rural supplies meets or exceeds the criteria in paragraph 32 above. This discussion will involve the relevant water services entity, the council, and representatives of the mixed-use rural supplies.

Confirmation by an independent panel

39. The group notes that it is important that the right decision is made around whether these mixed-use rural supplies should transfer to the users. The group recommends that an appropriate decision maker (for example, an

independent panel) will make a final determination on whether the scheme is eligible to transfer to users.

40. The group further recommends that a disputes resolution process be established to quickly resolve issues in the decision making.

Referendum

41. The group recommends that all decisions to transfer supplies to users be run through an appropriate democratic process to ensure consumers of the **mixed-use rural supply** support the proposal.
42. The group notes that the Local Government Act 2002 already provides for situations in which a council may wish to transfer a small water service to “an entity representative of the community for which the service is operated”. These provisions apply to water services that serve 200 or fewer people and include a binding referendum across the properties served by the supply. For a transfer to proceed, it must be supported by more than 50 percent of the votes cast in the referendum.
43. The group recommends that a similar process should be used for **mixed-use rural supplies** that may wish to transfer to their users. This process would only be available to those **mixed-use rural supplies** endorsed by the decision maker referred to in paragraph 39 above. The group further recommends that a 75 percent majority of votes cast in the referendum would be required for a referendum to succeed.
44. A representative body will need to be identified and agreed early in the process to represent each mixed-use rural supply, as they would need to be involved in the preparation of information to support the referendum. This could be existing mixed-use rural supply governors or management bodies, for example.
45. It is critical that the users of the scheme make the final decision about whether the mixed-use rural supply transfers to them and that they have all the information they need to make this decision. This includes receiving similar information to what would ordinarily be required as part of a transfer conducted under the Local Government Act 2002.
46. The consequences for the mixed-use rural supply transferring to its users will need to be clear to the voters in the referendum process.
47. To be clear, any **mixed-use rural supply** that does not transfer to the entity, must transfer into the ownership and control of the users of the supply; it will not stay in council ownership. This means the representatives of the users will become fully responsible for meeting all the relevant requirements in the drinking water regulatory framework, and for any associated costs. The representative of the users will not be able to rely on the support of the council or the water services entity, except where it is facing significant problems or where this support is provided as a commercial arrangement.

Rural supplies with unclear ownership

48. Privately-owned water supplies are not covered within the scope of these reforms, and the process proposed above would only cover mixed-use rural supplies that are owned by councils. If there is a situation in which a council is a part owner, then this process could be used to help determine what would

- happen to that **mixed-use rural supply** (providing the other ownership interests are clear).
49. Many mixed-use rural supplies were established by local farmers and those supplies are generally “owned” by the local farmers. However, in some instances there is no clear legal ownership structure in place. Some of these mixed-use rural supplies received government funding several decades ago, and subsequently ownership was vested in the local council.
 50. The group has heard anecdotally that there may be some mixed-use rural supplies where there is council involvement, but the ownership arrangements are unclear or undocumented.
 51. For mixed-use rural supplies where ownership is not clear, the group recommends a process to enable case-by-case consideration and negotiation between affected parties. This process would include the development of a plan for resolving these issues and would need to be agreed by the affected parties.
 52. The transfer process must ensure that all the relevant assets, liabilities, interests, obligations and responsibilities are resolved appropriately. This will include ensuring that councils are not left with ongoing involvement in any drinking water supplies.

Strong support for non-privatisation

53. We support the strong protection against privatisation of council-owned rural water supplies and note that this is already provided for in the Water Services Entities Bill. The group recommends that the provisions to protect against privatisation of currently council-owned rural water supplies, would be further strengthened through cross party support and an entrenchment clause in the legislation, to ensure that these provisions are enduring.

Pricing and Charging

54. The group considered options for how water services entities might charge for water provided by mixed-use rural supplies.
55. The group strongly prefers that rural service users not subsidise urban service users. The group is concerned that rural drinking water consumers could subsidise urban wastewater and stormwater services.
56. The group received advice from DIA officials that the economic regulation system will ensure there will not be any cross-subsidies between waste, drinking or stormwater services. The group recommends that there be no cross-subsidies between the different types of three water services. The group also recommends that rural service users should not subsidise urban service users.
57. The group considers community input important and supports provisions to ensure that consultation will allow input from end users. The group recommends that consultation on pricing and funding plans, including the types of charges proposed (e.g. a mixture of fixed and volumetric charges) for the new water services entities be undertaken before the entities ‘go live’.
58. The group supports the pricing and charging principles proposed by DIA officials as follows:

- a. **Simplicity:** tariffs should be simple, transparent and easy to understand for consumers;
 - b. **Non-discrimination:** there is no undue preference shown to or undue discrimination against any class of customers, so that purchasers of services with the same cost pay the same price. Customers in disparate areas places are not separate classes of customer, if a decision has been made to geographically average their prices;
 - c. **Full cost recovery:** tariffs should reflect full cost recovery in the long-run: the price for each service reflects an appropriate contribution to the full underlying efficient cost of delivering that service so that, over time, the full efficient costs of providing that service across all users is recouped (except for growth charges which are not intended to fully recover costs);
 - d. **Resource efficiency:** tariffs should promote resource efficiency. Prices should generally be structured to signal to customers the costs associated with their water use decisions. Using water efficiently contributes to Te Mana o te Wai by extracting less water from ecosystems, and it reduces climate impacts.
59. The group notes that water services entities will need to incur significant capital expenditure in order to introduce domestic volumetric pricing in new areas, and that this investment will have to be weighed up against the other infrastructure investment required to be undertaken by each entity. The group recommends that water services entities must meaningfully consult with affected consumers on any proposals to introduce volumetric pricing of domestic drinking water.
60. The group recommends that water services entities have the discretion to ensure that pricing and charging is fair, using geographic averaging, with some constraints on how each water services entity implements it. Any increase in prices to achieve geographically averaged prices should be incrementally introduced (say over five years) to reduce price shocks. The group also recommends that approaches different to that of pricing for treated water for residential use be taken to pricing of bulk water for agricultural use.
61. Importantly, the group recommends that any use of geographic price averaging is limited to the same service and 'similar classes' of users, e.g. price averaging across agricultural water supply and domestic drinking water supply is inappropriate.
62. The group also recommends that some exceptions to geographic averaging are allowed, including where communities have sought a higher level of service than is provided elsewhere in the water services area, or where communities receive a lower level of service than what is generally provided in the water services area.

Governance, representation and management

Governance and representation

63. There are a variety of governance arrangements in place for mixed-use rural supplies. These arrangements often reflect the circumstances of each community when the council-owned mixed-use rural supplies were being established, the primary purpose of the schemes, and their method of funding. Frequently, the governance of council-owned mixed-use rural supplies is heavily influenced by their consumers. The appendix to this report highlights a handful of case studies that reflect these arrangements.
64. Specific concerns raised by the group in relation to governance were largely around the potential loss of community voice, and around concern that management decisions (including funding decisions) would be taken away from the current governors/managers of council-owned rural schemes.
65. It was noted that issues regarding governance and the contact with the operational arm of mixed-use rural supplies are greater than just loss of community voice. Concerns reflect the fact that the reliable delivery of water via mixed-use rural supplies is essential to the viability of farming and rural businesses. Stocking rates, and hence profitability, are directly affected by the reliable availability of water. Animal welfare codes and environmental regulations also form part of the framework.
66. The group supports recommendations made by the Working Group on Representation, Governance and Accountability, to strengthen the proposed governance and accountability model, particularly the mechanisms for ensuring that community voices can be heard. For example, including consultation on key planning and accountability documents, the establishment of community forums, and provision for sub-regional advisory groups or committees. The group recommends that the recommendations made by the Working Group on Representation, Governance and Accountability are taken up by the Government.
67. It was noted that feedback should be provided in both directions i.e. not just up to the entities to consult with the community, but also ensuring that mixed-use rural supplies can effectively provide input into decisions impacting their operations. There needs to be a clear link between farm businesses and a large (and distant) water services entity. Through the consultation processes, the water services entities need to understand the business impacts for rural communities if water supply is at risk. Risks to water supply have a material impact on the financial viability of rural businesses.
68. The group discussion of governance and representation included consideration of the co-governance arrangements at Regional Representative Group level, which the group considered appropriate. Some members of the group felt this should extend to the Board level of the water services entity as well.

Management and operations

69. Group members noted a range of management arrangements for rural schemes and discussed options of how these arrangements could potentially transfer. Mixed views were expressed regarding the option for shared

management and operational responsibility versus having input into operational responsibility, between the existing rural scheme managers and the new water services entity.

70. The group recommends that water service entities need to consider current arrangements related to management of the mixed-use rural supplies that transfer to them. Attention needs to be given to supplies where there is a high user participation in day-to-day operation and sometimes informal agreements to provide land access etc. The continuity of these arrangements in some form may lead to lower costs and greater reliability of the services.
71. The group further recommends that water services entities consider providing support to mixed-use rural supplies on a contractual basis to ensure access to safe drinking water. This could be achieved through a mechanism like a “rural scheme management services agreement” which is used in some parts of Aotearoa. This additional support goes beyond the anticipated duties of the water services entities to ensure that communities have access to drinking water if other drinking water suppliers face significant problems.
72. The group notes that significant driving distances between main towns and rural supplies increase the cost of service and the timeliness of repairs and maintenance. For example, a recent analysis of driving times from rural supplies to the nearest towns with accredited laboratories shows an average return drive time of nearly 90 minutes and a maximum return drive time of over 12 hours. Local contractors are often well placed to deliver operations and maintenance services at a lower cost and faster response time.
73. The group recommends that operations and maintenance of mixed-use rural supplies are performed by staff and contractors from the local community where possible. The group acknowledges that specialist expertise from outside the local community will be required from time to time.

Part B: Other rural three waters matters

74. The group's Terms of Reference extends beyond the treatment of mixed-use rural supplies that is the focus of Part A of this report. The group also considered longer term issues affecting approximately 75,000 non-council-owned drinking water supplies (private supplies), many of which are rural. These private supplies will not be directly affected by the Three Waters service delivery reforms and the resolution of policy issues does not need to be addressed immediately in the legislation to form the water services entities.
75. Part B of this report covers:
- a. rural marae and papakāinga;
 - b. cost and resource implications for small drinking water suppliers;
 - c. **non-council-owned** mixed-use rural supplies.

Rural marae and papakāinga

76. Many rural marae and papakāinga have a long history of being under-served by the three waters infrastructure. Presently, less than 40 percent of marae registered with Te Kāhui Māngai can connect to a town supply for drinking water.
77. The group discussed three waters services to rural marae and papakāinga, and found that:
- a. many marae need a large capacity to manage peak instantaneous demand: e.g. during tangi and wānanga;
 - b. Te Mana o te Wai and tikanga is at the forefront of marae representatives' minds. E.g. Wharenuī roof water is tapu for some marae;
 - c. the cost of installing new drinking water supply infrastructure for treatment and reticulation (pipes) for marae and papakāinga is likely to be significant and cause affordability issues;
 - d. there are many examples of reticulation of untreated water to marae and papakāinga across Aotearoa;
 - e. papakāinga are not always located near marae, making it impractical to connect papakāinga to marae water treatment systems (if they exist). Many papakāinga are located along main rural roads and could be candidates for reticulation with significant investment;
 - f. many papakāinga are in high deprivation areas and affordability is an issue;
 - g. some papakāinga are located near to existing council treated water networks and could be connected with additional investment.
78. The group recognises that there has been a significant underinvestment across councils and other agencies regarding information on the location of rural marae and papakāinga, as well as the quality of their drinking water and wastewater systems. This has resulted in a significant information gap which

- needs to be addressed in order to identify long-term sustainable solutions for marae and papakāinga. The group strongly supports a coordinated approach to addressing these information gaps.
79. The group supports the \$30 million rural drinking water fund programme sees it as a good initiative. The group notes that this funding is one-off and insufficient to address legacy issues faced by rural marae and papakāinga drinking water and wastewater schemes.
 80. The group recognises that there is much to be done to address legacy issues faced by rural marae and papakāinga drinking water and wastewater services. These legacy issues relate to the quality of the infrastructure and the ability for some rural Māori communities to afford upgrades and ongoing operating costs. The group recommends the new water services entities take a systematic approach to identifying and addressing these issues.
 81. The group recommends further consideration of the role of water services entities in supporting the sustainable and enduring resolution of funding/service provision for rural marae and papakāinga drinking water and wastewater schemes. This additional support needs to extend beyond a one-off funding boost, as this infrastructure typically has a multi-decade economic life. Specifically, the rural group strongly recommends that when water services entities are established, they prioritise the assessment of marae and papakāinga (including how to give effect to Te Mana o te Wai).
 82. The Terms of Reference requires the group to consider three waters services to rural marae and papakāinga and recognises that drinking water issues for these kāinga will require additional resourcing and expertise.
 83. We recommend the establishment of an additional longer-term working group to specifically consider the issues with the provision of drinking water and waste water services to rural marae and papakāinga as a priority. This new working group's outputs will need to assist in understanding the scale of the issue. They will need to provide data for the water services entities in order to prioritise their work programmes so that they can address these issues from 1 July 2024.

Regulatory issues

84. The group supports that rural communities should have access to safe drinking water and that regulation is needed to achieve this. The group considers that regulatory requirements for small and rural drinking water supplies, including rural marae and papakāinga, need to be proportionate to the scale, complexity, and risks that relate to these supplies in line with the main purpose of the Water Services Act 2021 (the Act).
85. Key planks of the regulatory system established by the Act are the duties of a drinking water supplier to supply safe drinking water that complies with drinking water standards, to register supplies, and to notify Taumata Arowai of safety or non-compliance issues, all while giving effect to Te Mana o te Wai.
86. These elements – and the other statutory duties that complement them – are, in principle, sound and appropriate. However, it is important to ensure that they are applied proportionately, as intended by the Act.

Transitional timeframes

87. Small drinking water suppliers, and particularly rural ones, need certainty about their legal obligations and to understand their role in providing safe drinking water. This includes providing certainty on regulatory timeframes in order to allow water suppliers adequate time to prepare for any changes.
88. The group is aware that many small and rural water suppliers will not have the ability to improve their drinking water supplies in the short term, if that is required to meet new regulatory standards. However, it is important to note that many responsibilities under the Act do not apply until a drinking water supply has been registered and a drinking water safety plan has been provided to Taumata Arowai.
89. Existing drinking water supplies that were not registered with the Ministry of Health on 15 November 2021 have until November 2025 to become registered. They then have up to November 2028 to provide a drinking water safety plan. Therefore, unregistered small and rural water suppliers have up to four years to register their supplies and seven years to provide drinking water safety plans for them, or to adopt an acceptable solution.⁴ The group considers that efforts should be made to ensure that unregistered suppliers, particularly rural suppliers, are aware of these timeframes. Our sense is that they are not well understood by the approximately 75,000 small drinking water suppliers at the moment. Furthermore, the options and pathways for these small supplies should be available and promoted well in advance of the registration requirements in 2025.
90. The group understands that some small and rural suppliers were registered with the Ministry of Health on 15 November 2021. They are already deemed to be registered under the new system. They need to provide drinking water safety plans, or to use other compliance pathways like acceptable solutions, by 15 November this year. The group heard about various tools Taumata Arowai is developing to assist these suppliers and supports the focus on these previously registered suppliers in the near future.

Small and rural supply issues

91. There is a wide range of small and rural supplies which have varying degrees of water treatment, ranging from no treatment, centralised treatment prior to distribution, to end-point treatment only.
92. Many of these small and rural supplies—particularly those providing drinking water to fewer than 25 people—were not regulated to any significant degree under the previous regulatory regime. They consequently may have limited knowledge of drinking water treatment and associated regulatory requirements.
93. For many water suppliers, there are concerns regarding cost and resource implications for implementing the new regulatory requirements. These concerns are particularly felt by small and rural supplies, including rural marae and papakāinga, that often have significant resourcing and funding issues that impact on the ability to provide safe drinking water. In many cases people rely

⁴ These timeframes can be shortened through regulations to bring classes of supplier into the regime more quickly, to better manage the transition period.

- on these supplies for their domestic drinking water, as there are no viable alternative supplies available.
94. Often these supplies are volunteer-run. There are issues regarding the future continuity of some of these water supplies due to cost and resourcing requirements, and the ability to continue to rely on volunteers to manage the supplies.
 95. The group felt that the timeframes for registration of the small, unregistered rural supplies should allow for their issues to be addressed through the efforts of Taumata Arowai, the water services entities, and other government agencies.

Mixed-use rural supplies

96. Mixed-use rural supplies (whether privately or council-owned) are varied, each has its own complexities and risks. It is important that regulatory interventions recognise and respond to these differences: one size does not fit all.
97. A key consideration with mixed-use rural supplies is that the supply of drinking water is usually a minute volume in comparison to the volume to their primary purpose of supplying water for agricultural or horticultural purposes.
98. Many of these mixed-use rural supplies have also historically operated so that water is supplied untreated on a 'raw' or 'as is' basis, with the recipient accepting responsibility for making sure it is fit for whatever use it is applied to. In this sense, the supplies could be characterised as an extension of the natural source waters that they draw from, bringing the source closer to users for water abstraction and treatment for subsequent use.
99. If regulatory requirements are perceived to be too costly or resource intensive, a potential outcome is that owners or operators of these mixed-use rural supplies may choose to cease supplying drinking water to human users, or to any future potential users, as the supply of drinking water is not their primary purpose. As mentioned earlier, there will not necessarily be a viable alternative drinking water supply that can be readily or cost-effectively used by people who lose access to drinking water in these situations, notwithstanding territorial authority or water service entity obligations as suppliers of last resort.
100. There are also practical compliance considerations with these supplies. For example, it is impractical to use chlorination for treatment and residual disinfection in rural water schemes which use open canals to transport water, as the chlorine is rapidly destroyed by sunlight.
101. To gain an in-depth understanding of these supplies it is important that Taumata Arowai work closely with mixed-use rural supplies to understand the operations and risks associated with these supplies.

Options to address issues

102. The group acknowledges that Taumata Arowai is considering multiple compliance pathways for small and rural supplies through assurance rules, acceptable solutions, and consideration of verification methods, including provision for end point treatment.

103. Acceptable solutions and verification methods provide alternative options for many small and rural supplies to meet their compliance obligations and can avoid the need to provide a drinking water safety plan and to provide residual disinfection.
104. The group is encouraged by the multiple compliance pathways Taumata Arowai is developing for small supplies, which will also be available to some rural and mixed-use supplies depending on their size. The group recommends that this work should advance as quickly as possible, subject to consultation and engagement requirements.
105. Taumata Arowai is also considering how these regulatory tools achieve the right balance between safe drinking water and minimising compliance costs, to ensure requirements are proportionate to the scale, complexity and risks for distinct types of small and rural supplies.
106. For example, where operators are unlikely to have prior experience handling chlorine or appropriate training, the health and safety risks of chlorination, as well as compliance costs, may in many cases outweigh the drinking water-related public health risks. Pathways based on end point treatment that do not impose chlorination requirements for these small and rural supplies would address these health and safety concerns, while also reducing compliance costs.
107. The group notes that the current draft assurance rules use population thresholds as a proxy for risk to determine the requirements to apply to the various kinds of supplies. Taumata Arowai informed the group that it considers that overall population is the best proxy for risk. While it is acknowledged that there is no ideal approach, the population approach has the fewest issues when considered against alternatives such as distinguishing supplies based on water volume, or number of drinking water services connections.
108. The group discussed the possible population threshold that might be used to define 'small' (for want of a better term) supplies for the purposes of the multiple compliance pathways that Taumata Arowai is developing. While that is ultimately a matter for Taumata Arowai to determine, a number in the range of 25 to 50 people was considered appropriate. This would mean the clear majority of the estimated 75,000 drinking water suppliers would have lower compliance costs in providing safe and reliable drinking water.
109. Taumata Arowai has developed and publicly consulted on a draft Drinking Water Acceptable Solution for Rural Agricultural Water Supplies. Taumata Arowai is currently considering the submissions it received on that document. That includes careful consideration of any adjustments that may be required to ensure that the scope and requirements of the acceptable solution are suitably proportionate.
110. Other issues that Taumata Arowai brought to the attention of the group include:
 - a. The Chief Executive of Taumata Arowai may exempt drinking water supplies, or classes of drinking water suppliers, from compliance with requirements under the Act. This is one of the powers intended to enable a proportionate regulatory approach. There is some uncertainty as to whether the Chief Executive of Taumata Arowai can make class exemptions on their own initiative, or whether they can only be made in response to a formal application from a supplier or representative of a

class of suppliers. The group supported both the ability of the Chief Executive of Taumata Arowai to initiate such exemptions, and the ability of any supplier or representative of a class of suppliers to apply for a class exemption, particularly in the early stages of the evolution of the new regime.

- b. Several duties in the Act apply to supplies that involve reticulation. 'Reticulation' isn't defined in the Act. It ordinarily involves concepts of connection and complexity, without any clear-cut threshold around size or scale. Its meaning will affect the number of supplies that are subject to the duties associated with reticulation, and the number that are most significantly to use residual disinfection and protect against the risk of backflow. The group consider that a clear definition of 'Reticulation' is needed to provide drinking water suppliers, consumers, and Taumata Arowai with certainty ensure that the regulatory regime is suitably proportionate.
 - c. The group recommends that Taumata Arowai develops options for exemptions to reduce the regulatory burden for small and rural suppliers.
111. In order to develop specific regulatory solutions for mixed-use rural supplies, it is necessary to define what a 'mixed-use rural supply' is. There was a definition of 'rural agricultural drinking-water supply' in the Health Act, but nothing of that nature was carried over into the Water Services Act. Taumata Arowai can define the term for its own purposes in regulatory instruments that it makes, such as compliance rules or acceptable solutions. However, the group considers the task for Taumata Arowai might be made easier if there was a statutory definition for it to rely on.
112. Overall, the group considers that there is value in taking time to better understand the nature and scope of small and rural supplies in order to ensure that regulatory interventions are proportionate. The group recommends that work is undertaken to better assess the risks for small and rural supplies in order to determine any new regulatory requirements that may be needed. The group considers that advisory groups and technical experts with expertise in small and rural water supplies should also play a significant role in developing regulatory options.
113. The group recommends that DIA and Taumata Arowai work closely with the rural sector and undertake further analysis on the scope and scale of the small and rural supply issues, as well as urgently developing options to resolve them.

Recommendations

114. The group was unable to prioritise several matters within the Terms of Reference over the last three months. Further work over the next year is recommended involving:
- a. Three waters services to rural marae and papakāinga;
 - b. Matters related to the National Environment Standard for Drinking Water, and implications on rural communities and rural drinking water suppliers.
115. To ensure that the proposed water services entities legislation considers the issues identified by the group, the following recommendations will improve the transfer of rural schemes transfer to the new water services entities and their management under the new regime.

Number	Recommendation
Council-owned mixed-use rural supplies	
1	All rural drinking water supplies owned by councils should transfer to the water services entities.
2	The group supports strong protection against privatisation of council-owned rural water supplies, and notes that this is already provided for in the Water Services Entities Bill. The group recommends that the provisions to protect against privatisation of council-owned rural water supplies is further strengthened through cross-party support to ensure these provisions are enduring.
Transfer process to users	
3	There should be a mechanism—in specific and limited circumstances—for some mixed-use rural water supplies to transfer into user ownership rather than ownership by water services entity.
4	A five-step process to be implemented to determine if a mixed-use rural supplies transfers to its users: <ul style="list-style-type: none"> • Council identifies mixed-use rural supplies • Council assesses feasibility and engages with mixed-use rural supply's users, Taumata Arowai and technical experts • Council consults the water service entity • Confirmation by an independent panel • Referendum of users.
5	Factors to be considered by all parties in the process include the criticality of the drinking water supply to

Number	Recommendation
	consumers, the size of its drinking water customer base, the predominant use of the scheme, and the capability, capacity and financial ability of an alternative owner/operator to ensure safe drinking water is supplied to consumers.
6	Users of the mixed-use rural supplies will also be required to be fully informed of the consequences of transferring mixed-use rural supplies to user ownership during the referendum process.
7	There be a disputes resolution mechanism as part of the decision process to transfer mixed-use rural supplies to user ownership.
8	A 75 percent majority of votes cast in the referendum would be required for a referendum to succeed.
Rural supplies with unclear ownership	
9	A process to be established to enable case-by-case consideration and negotiation between affected parties where ownership of a mixed-use rural supply is unclear.
Pricing and charging	
10	There should be no cross-subsidies between three waters services i.e. drinking water, wastewater or stormwater services. Rural service users should generally not be subsidising urban service users.
11	Consultation on pricing and funding plans, including the types of charges proposed (e.g. a mixture of fixed and volumetric charges), for the new water services entities to be undertaken before the entities 'go live' and before domestic volumetric pricing is introduced to new areas.
12	Water services entities to have the discretion to ensure pricing and charging is fair, using geographic averaging, with some discretion on the way each water services entity implements it after consulting users.
13	Any use of geographic price averaging to be limited to the same service and similar 'classes' of user so that price averaging between agricultural and horticultural water supply, and domestic drinking water supply will not occur.
14	There should be some exceptions to geographic averaging, including where communities have sought a different level of service to that which is provided elsewhere in the water services area.

Number	Recommendation
15	Any increase in prices to achieve geographically averaged prices should be incrementally introduced (say over five years) to reduce price shocks.
Governance, ownership and management	
16	The recommendations made by the <i>Working Group on Representation, Governance and Accountability</i> to be taken up by the Government, and governance representation from rural schemes to feed into the water services entities, to providing a mechanism to retain local voice and provide input into management and funding decisions relevant to the supply.
17	Support 50/50 co-governance at the regional representative group level, noting that the entity board will make skills-based appointments.
18	For rural supply schemes that are transferred to the entities, the group recommends that any specific scheme governance (and management) arrangements involving users are discussed between the communities served by the schemes and the establishment entities, and potentially provided for in entity constitutions or other agreements as appropriate.
19	Water services entities need to consider current arrangements related to management of the mixed-use rural supplies that transfer to them.
20	Water services entities to consider providing support to private mixed-use rural supplies on a contractual basis to ensure access to safe drinking water.
21	Operations and maintenance of mixed-use rural supplies to be performed by staff and contractors from the local community where possible.
Rural marae and papakāinga	
22	Water services entities to support the resolution of service provision and affordability for rural marae and papakāinga drinking water and wastewater schemes. Additional support needs to be sustainable and enduring (i.e. not just a one-off funding boost).
23	Water services entities to prioritise the assessment of marae and papakāinga (including how to give effect to Te Mana o te Wai) when they are established.

Number	Recommendation
24	Develop a coordinated work programme to address geospatial information gaps relating to marae and papakāinga.
25	Establish an additional working group to consider the issues around rural marae and papakāinga. Expressions of interest for group members to be invited. The working group should be formed as soon as practicable.
Regulatory proposals	
26	Further consideration be given to the collective impact of the regulatory proposals that are being developed by DIA, Taumata Arowai, and Ministry for the Environment.
27	Taumata Arowai to advance work in developing multiple compliance pathways for rural and small drinking water supplies, as quickly as possible.
28	Clear definition of 'Reticulation' is provided to drinking water suppliers, consumers, and Taumata Arowai, providing certainty to ensure that the regulatory regime is suitably proportionate.
29	Taumata Arowai to develop option for exemptions for chlorine in certain drinking water supplies, in order to reduce the regulatory burden for small and rural drinking water suppliers.
30	DIA and Taumata Arowai to work with the rural sector to undertake further analysis on the scope and scale of the small and rural supply issues and developing options to resolve them.

Appendix: Rural scheme case studies

Rural water scheme case studies were provided by members of the group. Case-studies were provided as follows.

Clutha District

1. Within the Clutha District there are 10 restricted rural water supply schemes, plus one stock water scheme.
2. Approximately **5,900 people** in the Clutha District are supplied drinking water from rural water schemes. This includes several townships around the district.
3. Each scheme has a committee elected triennial from customers on the schemes. These are sub-committees of the Council, but final rating and budget decisions sit with the Council.
4. Most rural schemes were built in the 1970s to early 80s. These are all piped schemes and were constructed originally on a 50:50 cost-share basis with the Government at the time.
5. A large proportion of the local contribution was in labour and working on the schemes. As such, many of the rural Clutha committees and customers feel a real sense of ownership of these rural schemes.
6. It is understood that a condition of the funding was that they were operated through the Council and they were required to meet the drinking water standards of the time.
7. All drinking water rural schemes have some form of treatment plant (many are sophisticated filtration and coagulation systems) and major upgrades are underway or budgeted for over the next three years.
8. The Waipahi Stock Water Scheme was constructed in 2009/2010; notes on property files state that it is not potable water, and not to be used as a drinking water source.

Clutha District Council proposals

9. The Council, on behalf of the rural schemes would continue to employ staff to support rural water, including acting as 'go to' contact people, liaising between the network and Entity D, giving farmers that local contact and providing a conduit between parties. They would not only ensure that work was undertaken in a timely manner but they would also act as consumer advocates and assist in ongoing engagement between scheme committees and the Entity on asset management and forward work programmes.
10. Farmers need assurance that should a fault occur it will be attended to in a timely manner, and that the point of contact is someone local whom they know and trust (no 0800 stranger). They also need recognition that continuity of supply for animal welfare is a priority
11. Rural infrastructure remains under the same ownership structure that is presently in place. The Entity controls the running of the plants and all infrastructure pertaining to urban supplies, but some of the rural infrastructure (not the water in the pipes, just the pipes) remains under rural/Council ownership. Various propositions have been suggested; it could be all

underground infrastructure that goes through farmers' paddocks, or everything from the reservoirs to the farmers' tanks. We acknowledge that this facet of the proposal needs further refinement, but it is such a fundamental requirement for our farmers that it is worth further consideration; it may even be viable for some lease arrangement to be in place.

12. Farmers want the underground infrastructure that runs through their farms to remain in the present ownership structure (two reasons, firstly to thwart possible future privatisation, and secondly there is a genuine affinity to the assets, their fathers put those pipes in the ground, and there is an intergenerational commitment to maintain and enhance networks).
13. The Governance structure is critical to ongoing goodwill and the day-to-day functionality of the networks, and while 12 individual schemes in Clutha may be too detailed for the Entity to deal with, the critical mass and scale exists for a single committee to engage with the Council through to the Entity.
14. They want current governance structures to remain. I think there was a general agreement that the present 12 scheme committees might need to evolve, with an additional tier where one representative from each scheme would be co-opted on to a committee of committees, and this group would continue to be supported by the Council to ensure engagement with Entity D on high level asset management and forward work programmes
15. Pricing will be the same leap of faith as presently exists with councils; the concerns around not cross subsidising or being dragged into the wider three waters costings is a concern that needs to be addressed in the details of Entity structure and the wider reform package, and is a topic of discussion for the Governance and Oversight working group.

The Earnscleugh Domestic Water Company Limited (EDWC)

1. The EDWC was set up in 2000. At the time, the local irrigation scheme (Earnscleugh Irrigation Company Ltd) had its water offline for an extended period while they constructed the pipeline from the Clyde Dam to the Fraser River. It was brought to the attention of EIC Ltd that some households were using irrigation water for drinking. These households were dependant on the irrigation water as bore water was not available in that part of Earnscleugh.
2. To avoid future problems, a domestic water scheme was installed using a bore, a header tank and restrictor valves that allowed each household 3,000 litres of water per day. As demand for connections increased this was reduced to 1500 litres of water per day. All properties have 30,000-litre storage tanks and there are currently 39 houses connected to the scheme. The annual water charge is \$373 per annum.
3. The scheme has **no council support** and is run by a board of volunteer directors. Operating issues are handled by a local company, Central Water, on an as-and-when required basis. Payments and receipts are managed by a voluntary secretary. The water is not treated but it is tested by the Central Otago District Council monthly for e. Coli. Fifteen of the 39 houses have a UV treatment plant which was a condition of their subdivision consent. The EDW scheme is on at least one register held by Taumata Arowai.

Compliance

4. The easiest way for the EDWC to comply with the Water Services Act 2021 (the Act) would be to apply for a **drinking water acceptable solution for spring and bore water supplies** (currently being consulted on). This is described as a practical and cost-effective way of supplying safe drinking water.

Problems

5. Finding directors who will take on the responsibility and obligations that come with complying with the legislation. Already community groups are trying to divest themselves of these assets.

Filtration, UV disinfection and chlorination.

6. While this is possible it will be a new cost. The key area of concern will be finding a company that will install and operate this system. To date, it has been relatively easy to engage a company for repairs and maintenance. I have been trying to get out of the other regulatory work for years and it is impossible. Having to monitor water quality with alarms and other equipment will require an office which will need to be subcontracted to someone as the scale of the business could not stand the cost of dedicated space.

Summary

7. While all the physical requirements are doable there will be a massive increase in the cost of running this scheme. The physical upgrade cost will be expensive and so will the ongoing maintenance cost if firms come out of the woodwork to supply this service. I hesitate to guess but it will be in the 1000's not the low hundreds, which is where it sits today. There is no way the

community will want to run this on a voluntary basis, and I am sure they will want to hand over the assets and responsibility to someone else.

8. Note that this is a scheme that supplies wonderful untreated and untainted bore water to a rural community that had no access to potable water. The water has been tested monthly for 22 years and there has never been a problem with it or a complaint about the quality or the taste.

Earnsclough Irrigation Company Limited (EIC Ltd)

1. EIC Ltd was formed in 1990 when the Crown sold the Earnsclough Irrigation scheme to the local community. I signed the sale and purchase agreement with the Crown on behalf of my community and have been a director of the company ever since.
2. We **supply irrigation water to 132 properties** covering 1580 ha through open canals called races.
3. Most properties get their water once every seven days and they store it in irrigation dams for use as and when required. The point of delivery is the boundary of the property and at that point EIC Ltd takes no further responsibility for the water. We have a signed supply agreement which spells out **that the water is for irrigation purposes and is not a potable supply**, and that EIC Ltd is not a water supplier. Currently EIC Ltd employs two part-time staff.
4. We know that some people rely on this water for domestic use as there is no other source of water. We have argued strongly that we should not be considered a drinking water supplier and those households who use the water should be operating a domestic self-supply.
5. The irrigation dam should be considered the source of the water just as a river would be a source of water for a single domestic dwelling. All we as a company have done is convey that river water a bit closer to the house. We never said it was any better or worse than it was when it came out of the river. Hence the onus is on the household to comply, not an irrigation company that purchased obligations from the Crown to supply irrigation water (not drinking water). Our source of water is the Fraser River, from which a domestic supply can be taken as of right under the current Otago Regional Council water plan.
6. Unfortunately, the wording of the Act does not appear to allow this, and it seems that we are swept up into this regime through no fault or desire of our own.

Compliance

7. The easiest way for EIC Ltd to comply with the Act is to apply for a drinking water **acceptable solution** for rural agricultural supplies.

Problems

8. The water supplied by EIC Ltd that is used by households is a minuscule fraction of a percent of the total water supplied (32 million cumecs). It will be impossible to comply with some of the conditions contained within the suggested solution and other conditions will drive the costs to the business up.
9. Backflow prevention is not easy due to the way that we supply water through open canals. Turbidity of less than 20 NTU cannot be guaranteed as our

source of our water is a river which has seasonal variability due to flooding and high flows. Irrigation water is not get turned off when it is discoloured.

Maintenance, inspection and calibration

10. Staff are not trained to do this. Attracting the appropriate staff will not be easy, and once again, subcontracting may be the only solution.
11. It is likely that the water quality will not be of an acceptable standard and that many or some MAVs will be exceeded on a regular or permanent basis.
12. The cost per household (current minimum charge is \$180 per annum) will increase; I am guessing it will be in the 1000's. There will be the same problem with governance but in this case, there will be no one to pass on the responsibility to. I imagine that we will have to move away from volunteer directors to paid directors.
13. Note: An estimate of the cost of providing per-house filtration has been provided by an expert, Craig Freeman of Filtec, who was part of the early advice on drinking water standards.
14. The estimate ranges from \$23,000 for a smaller house to \$27,000 for a larger Marae or similar (fruit pickers' quarters). All houses on my scheme would face these sorts of costs plus the cost of administrating these systems. I am looking forward to you all helping us find these safe and affordable solutions for rural communities like mine.

Ruapehu District

1. The systems are generally old, their layout or conditions are not well defined, nor are there formal easements in place. They were provided for some historic reasons e.g. originally to provide water for a mill or for a railways supply.
2. Not all the smaller private water schemes, as newly defined, have been identified. They are often run by a keen community member with very little continuity when they step down. e.g. a retired engineer running a private scheme.
3. They often do not wish to be supported by their local council and prefer to be run as a fiefdom from a strong-willed local committee or individual.
4. Connections to a raw water main are not always formalised and sometimes informally made in lieu of easements. This is often only identified as unaccounted water.
5. The private schemes would struggle with the monitoring conditions. Many of the schemes are remote and access is susceptible to weather conditions, which would prevent manual daily samples from being reliably delivered to the labs.
6. There is a danger that the committees of these schemes may walk away if the imposed conditions are impractical for them to deliver.
7. Marae supplies would be difficult to classify, as numbers of their normal resident users may be relatively low, whereas they could swell to many hundreds (>500) during a Tangi.
8. Community Drinking Water Supplies in Ruapehu District:

Community Names	Population Served > 500	Source Water
Taumarunui	4870	River
Turoa Skifield	4500	Stream
Whakapapa Skifield	3000	Stream
Waiouru	2800	Stream
Ohakune	1500	Stream
Raetihi	749	River
National Park	240	Stream
Owhango	200	Stream
Whakapapa Village	200	Stream
Ohura	160	Stream
Kariori Pulp Mill	130	River
Ngakonui School	120	Spring
Piriaka	120	Spring
Tangiwai Sawmill	120	Unknown
Manaiti Marae	90	Unknown
Kakahi	78	Spring

Community Names	Population Served > 500	Source Water
Ngapuke School	70	Unknown
Mana Ariki	50	Spring
Raurimu	40	Stream
Hia Kaitupeka Marae	37	Spring
Ongarue School	20	Spring
Orautoha School	12	Unknown
Kaitieke School	12	Unknown
Tokorima School	10	Roof

9. Ruapehu District Council supplies above 500 are Taumarunui, Ohakune and Raetihi. The three other supplies fall within the less than 500 range these being Ohura, Owhango, National Park.
10. The only community not identified in this list is Waimihi which would fall under the less-than-50 category. This has a spring supply from the railway days servicing the village and the marae.
11. There are also five marae in the Ruapehu District that are outside our area of reticulation and their source of water is unknown at this stage.
12. There are an unknown number of large farms with multiple residences which will fall below the less-than-50 criteria. Several small schemes exist servicing outlying areas of towns with a reticulated supply. The quantity of these is unknown at this stage.
13. There are also several small schemes around communities that service suburbs outside the area of reticulation, i.e. Mania Road and Tamariki.

Waimate Districts water infrastructure

1. A brief overview of Waimate Districts water infrastructure is as follows.
2. Waimate District Council (WDC) has one urban and six rural water schemes. The urban scheme is supplied from two geographically separated deep wells, each with multiple barriers for protection including UV disinfection. Both wells are fully compliant and meet current and predicted future requirements. The scheme services a population of more than 3000 people and currently is a non-metered supply.
3. WDC is currently undergoing installation of universal metering of all urban water users. Initially these meters will be utilised for water loss management and the sustainable use of our water resources, in order to optimise our renewals programme and to advance the management of the network.
4. Our **six rural water schemes** are generally from shallow water takes with only one supplied from a deep bore. Three of the supplies are either already compliant with the Drinking Water Standards for New Zealand (DWSNZ) or are currently undergoing an upgrade to meet the current and proposed DWSNZ. Initially the raw water was chlorinated at source, and distributed via trickle supply and restrictor to the end users via a large network of small-diameter piping spanning the district.
5. These supplies are unique in as far as they utilise the principle that each consumer receives a specific volume of water within a 24-hour period, noting that pressures—and consequently flow—vary considerably within each network and during each 24 hours.
6. Effectively each consumer's allocation represents their peak annual demand, which may be used over just a few months of the year, or every day. As a result, the sold volume for any scheme often far exceeds the network's capacity to deliver. They are finely balanced systems that require careful monitoring, extensive knowledge and responsive maintenance to ensure they continue to operate as designed. Significant mitigation is obtained via on-site storage, and WDC estimates that this storage represents four times the daily allocation.
7. Each rural scheme is run by a local committee consisting of mainly farmers/users. The Council has staff assisting the committees with technical details and budgeting to meet the financial overheads and expenses of the scheme.
8. The populations served vary from 120 to 1350. Total connections vary between 50 and 531 respectively. For scale, WDC maintains 900km of pipework of which 830km is located rurally.
9. Waimate DC has spent enormous amounts of time and money attempting to secure other secure water sources without success. Shallow water supply is often the only option at this time.
10. These rural supplies were constructed during the 60s and 70s as stock water schemes with assistance and co-funding from the (then) government. These schemes addressed the drought conditions that were being experienced and they have been integral in ensuring profitable agriculture for the region. Labour was often supplied by the (then) users as part contribution.
11. Many of the farms supplied by this system are still in family ownership and there is a strong colloquial ownership around these schemes. Much of the

infrastructure is situated on private land without lease or easement agreements. It has been stated that the continued use of private property for the conveyance network could potentially be compromised by “unaccepted” reform.

12. Of the total water supplied via our rural schemes, approximately 85 percent is used as stock drinking water.
13. Due to the location and terrain of some of our schemes we have very poor or no connectivity, which results in serious issues around live telemetry of data. In the same vein, the physical connection between supplies is highly unlikely to be based on topography and or geographic separation. In fact, there are some areas that could never be economically reticulated yet which feature in current government modelling.
14. I am sure that the situation in the Waimate District is one that is repeated around many rural councils throughout New Zealand, particularly within the South Island.
15. I have **heard with almost 100 percent agreement that our rural customers do not want any part of a larger amalgamated entity**. This has also been aired at a public meeting we have had in our urban area.
16. Trickle-fed supplies are particularly unique and whilst the revised DWSNZ are looking to address these, the operation is certainly not well understood. Of particular note is that they do not align with conventional pricing structures based on usage. There is no one-size-fits-all approach to cover the entire country or even regionally.

Ōtorohanga District Council

1. Ōtorohanga District has six rural water schemes. All these schemes are sourced from either streams or rivers.
2. The number of connections vary in size from nine properties to 35, with a population provided on each rural scheme varying from 20 to more than 400. Of the six rural water schemes, one has a school connection.
3. The largest of Ōtorohanga District's rural water schemes has a maximum treatment capacity of 1800 m³/day with the water being river-sourced, requiring clarification, rapid sand filtration and chlorine disinfection. Three others have direct filtration and chlorine disinfection, a further scheme has rapid sand filtration and no disinfection. The last of the schemes comes from the same source as that of Ōtorohanga town; it has clarification, rapid sand filtration, pH correction, chlorine disinfection, continuous monitoring of FAC and clear water turbidity automation of chemical disinfection dosing.
4. There is only one rural water scheme that is fully compliant with current drinking water standards and that is sourced and treated by the same facility as the Ōtorohanga community. A further rural scheme is on a permanent boiled water notice.
5. Ōtorohanga District's rural water schemes were established during the same period as Waimate with the same co-funding agreement with the (then) government—as many of the schemes across New Zealand at the time were. The concerns voiced by each of our water scheme committees are varied, but they all come back to ownership, governance, cost and accountability.