

Water Services Bill 2020

Submission to the Health Committee

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IRRIGATION
NEW ZEALAND

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Summary

Irrigation New Zealand Incorporated (IrrigationNZ) supports the intent and philosophy behind the Water Services Bill (the Bill) to (along the other aspects of three waters reform occurring) implement the six fundamental principles of drinking water safety, as articulated by Havelock North Drinking Water Inquiry.

However, we do have concerns regarding:

- potential unintended consequences of the Bill on (in particular) small and very small drinking water suppliers in rural areas;
- the implementation of the new requirements by small and very small drinking water suppliers, in particular in relation to cost, and issues relating to capacity and capability across the sector;
- implications of the new regulatory regime on small and very small suppliers who are unable to meet new requirements due to financial or other constraints;
- legal implications for suppliers (such as irrigation schemes) who provide water to secondary drinking water suppliers;
- the effects of source water protection on land use within protection zones; and
- timeframes for implementation.

A major concern that our sector holds is that the planning and modelling that has gone on to develop the Bill may have grossly underestimated the number of families and farms that will be captured by this and the costs associated with implementing it.

It is acknowledged that (as stated by the Taumata Arowai Establishment Unit):

Evidence indicates that some small drinking water suppliers face difficulties in providing safe and acceptable drinking water to their communities. Taumata Arowai's starting position is that rural communities should not be second-class citizens when it comes to the safety and quality of their drinking water.

Whilst we do not wish rural communities to be, in effect, relegated within a two-tier drinking water safety system, IrrigationNZ submits that more consideration needs to be given to the effects of the Bill on the rural water sector by amending the Bill and allowing more flexibility within the parameters of "acceptable solutions" as proposed under the Bill.

Throughout our submission we have included case studies from our membership in order to clarify and illustrate our concerns.

About Irrigation New Zealand

IrrigationNZ represents over 3,500 members nationally, including irrigation schemes, individual irrigators, and the irrigation service sector. Our irrigator members include a wide range of farmers and growers – sheep and beef, dairy and cropping farmers, horticulturalists, and winegrowers. We represent over 120 irrigation service industry companies – manufacturers, distributors, irrigation design and install companies, and irrigation decision support services.

We are a voluntary-membership, not-for-profit incorporated society whose mission is to create an environment for the responsible use of water for food and fibre production.

As an organisation we actively promote best practice irrigation and carry out a range of training and education activities. Over the last five years we have trained over 3,000 irrigators on different aspects of irrigation best practice to improve water use efficiency and better manage environmental effects.

IrrigationNZ members share many of the same goals as other New Zealanders:

- to reduce their environmental footprints and see improvements in the health of our waterways;
- to contribute to the wellbeing of their communities; and
- to provide for a sustainable future for New Zealand.

IrrigationNZ appreciates the opportunity to provide feedback on this important Bill. As the provisions of the Bill are debated and then finalised, we implore decision-makers to remember that implementation “on the ground” will be a crucial factor in achieving the outcomes sought by the reforms.

Our members are experts in managing water supply and delivery. To this end, they are, in many areas, suppliers of water that is used by consumers for drinking water purposes. This may be because there is no other water supply in place, they are suppliers to a secondary supplier, irrigation systems are utilised to deliver water to multiple buildings, or they simply have multiple buildings on farm sharing a single water source.

The implications of the Bill, particularly in relation to duties, responsibilities, and liability are a concern for many of our members who have become drinking water suppliers by necessity rather than by design.

IrrigationNZ would therefore urge consideration to be given to implementation and timeframes when making decisions on this package. Capacity and capability to roll out some of these measures and regulations is a real concern.

Small and very small suppliers

We have estimated that undertaking water quality sampling will cost around \$6,500 for a farm with five dwellings and a shed with a staff room, which only covers the cost of having the water samples analysed. It does not include the cost of the time taken to take the samples and transport to a courier collection point (as samples need to get at a certain temperature in order to gain accurate results). It also does not include the costs that will be associated with developing and implementing drinking water safety plans and source water management plans.

We have been advised that the number of small and very small suppliers that are currently not required to register, was estimated for the purpose of this policy package at a few thousand. We consider the actual number is an order of magnitude higher than the original estimate.

IrrigationNZ has undertaken a survey of our independent farmer members¹, and 76 percent of them have a single point of supply that services multiple buildings on their property. Although we only represent one specific subset of farmer/growers, it is likely this proportion is similar across dryland and as well as irrigated farmers. Therefore, the number of small and very small suppliers now captured by the regulations is likely to be in the many tens of thousands.

For testing alone, the cost of implementing these changes will be in the hundreds of millions. Although we do not submit that a cost can be put on health; the time, costs, and complexity for farms should not be underestimated and must be considered carefully in the development of this legislation and subsequent regulations. The Three Waters Reforms must also be considered within the context of the wider freshwater policy web. Farmers, growers, and councils alike are facing significant regulatory change and challenges through the introduction of the Essential Freshwater package.

Capacity and capability in the sector are already stretched.

IrrigationNZ therefore submits that the **meaning of domestic self-supply be extended** to those properties with multiple farm buildings obtaining water from a single source, but with a capped number of buildings (for example, five) and a maximum number of consumers.

Although we note that a draft Acceptable Solution for rural water suppliers has been developed, it is noted that this only applies to those supplies where the supply of drinking water is up to a maximum of 35 percent of the supply. Many farms will not have this Acceptable Solution available

¹ That is, those irrigators with their own bores or small surface water takes independent of large irrigation schemes.

to them, and the solution as drafted is unlikely to reduce the costs and complexity of compliance by a large amount.

CASE STUDY: a very small supplier facing unprecedented regulatory change

We are an informal group of ten members who source water from a small, short-run creek that flows into the Clutha River. In October of this year our deemed permits expire.² Five years ago we decided to begin work on our RMA water consent application to replace our deemed permits. The sharing of costs, expertise and information across the group has worked well.

We expect to lodge our application shortly, we don't know how much water our group will be allocated or what additional conditions will be part of the consent. To date, we have paid our consultant \$70,000 for his time over the past five years plus several other sub-contractors for their reports that will support our application.

In the last year, the Otago Regional Council has introduced Plan Change 7 to the Water Plan for Otago which will affect how the applications are processed and decided. This has added much complexity to the process and we see it as a shifting of the goal posts. This has caused much angst, extra time and, of course, money. Plan Change 7 is only one of part of what we feel is an overwhelming "rising tide" of fast-paced regulatory complexity and change. The proposed Water Services Bill is the most recent example.

The creek water is primarily used for irrigating fruit trees as most water-users in the group are orchardists. Some are farmers so they irrigate the small flatter areas of their hill country farms. We live in a low rainfall area, so irrigation is essential to grow export quality fruit and to guarantee grass and winter crop growth.

Five of us also take the water for domestic use. We consider the water quality to be excellent, test results show that the *E. coli* levels vary between 0 to 5 cfu/100ml. To achieve less than 1 cfu/100ml we would need to use a UV treatment system at the house. Like many properties, we have another building that uses the same domestic source. We are caught out by the proposed Bill as a user group.

We consider that in a small scheme like ours, each property owner should be responsible for their own treatment system, such as a UV unit. The costs associated with managing source water protection as well as undertaking safety plans we consider prohibitive, when combined with all the other compliance costs and regulatory burdens we are now facing.

Secondary supplier relationships

As drafted, the Bill makes little differentiation, in terms of responsibilities, duties, and liabilities, between water suppliers who supply directly to consumers and those who supply to other water suppliers (we have provided two case studies in our submission, but there are several current and developing irrigation schemes that are in this situation). This is a concern for irrigation schemes whose *primary* purpose is supplying water for irrigation purposes, but also supply untreated water to water suppliers (generally district councils).

In practice, it is likely that the two water suppliers in such a system would work together to develop and implement drinking water safety plans and source water protection plans, however, in this situation there is the real potential for duplication of cost, effort, and resources.

There needs to be clearer role definition with the legislation when it comes to the roles of indirect primary and direct secondary water suppliers. The burdens required of direct suppliers should not be similarly applied to indirect suppliers.

IrrigationNZ seeks that the Bill be amended to provide **clarity around roles and responsibilities** between primary and secondary water suppliers, in particular where the primary supplier does not supply any drinking water directly to consumers.

IrrigationNZ submits that **a further definition be included in the Bill** to differentiate between “drinking water suppliers” and “suppliers of raw water to drinking water suppliers,” to apply when the suppliers of raw water do not supply directly to consumers.

² Deemed permits were originally mining rights allowing the use of water within designated gold fields and are common across Central and North Otago. These were converted to irrigation rights in the early twentieth century and originally had no expiry. When the RMA was introduced in 1991, all mining privileges were deemed to be water permits and were given a common expiry date 31 October 2021.

CASE STUDY: irrigation schemes providing raw water to Districts Councils - Lower Waitaki Irrigation Company

The Lower Waitaki Irrigation scheme is one of the oldest in New Zealand, with the original race taking water from the Lower Waitaki River being constructed in the early 20th century. The scheme irrigates 20,357 hectares across the Waitaki Plains and pockets of the foothills north and west of Oamaru in North Otago.

The scheme also provides domestic supply to the town of Oamaru and industrial water to the Alliance meat processing plant at Pukeuri. The Waitaki District Council is a shareholder in the scheme, allowing them to be a “secondary” water supplier.

The scheme shares an intake with the North Otago Irrigation Company, with water flowing into a ponding area known as Borton’s at Black Point on the South Bank of the Lower Waitaki River.

From the ponding area, the two schemes have offtakes. The Lower Waitaki scheme was designed as an open-channel race network, with water supplied to farmers (generally) under gravity. Water has been supplied to the town of Oamaru since around 1984.

Over time, the company has worked to improve its efficiency, both at the scheme and farm levels. As farmers and growers have moved from flood irrigation systems to more efficient spray systems, the scheme has altered its infrastructure in order to meet on-demand water requirements of its shareholders (as opposed to the previous rostered system of delivery).

An example of this is the installation of buffer ponds along the scheme’s race network. In 2012 the company constructed a pond to improve the reliability of water, in particular for the town of Oamaru. The pond can provide up to three days of water in the event of a significant flood or other event that prevents abstraction directly from the river. It also provides a valuable community recreation resource.

The scheme provides water through its race network, with the Waitaki District Council having an offtake within the Oamaru town boundary. The water is then reticulated to a reservoir and treatment station.

The scheme is committed to ensuring the town of Oamaru continues to have an adequate and safe supply of water. However, the Bill leaves some uncertainty for the scheme in terms of where its responsibilities and requirements begin and end.

As the scheme’s intake is shared, is there some responsibility for source water protection on the other irrigation company that does utilise the same intake infrastructure but does not provide any water for domestic suppliers?



As the scheme operates as an open-race network, the scheme is unable to ensure that no contaminants enter the race network as there is no domestic supply directly from the races. The land around the scheme's intake is owned by the Crown and forms part of the conservation estate. It forms a large wetland area where there are many waterfowl and a range of aquatic species.

The treatment system administered the District Council ensures that water quality for domestic supply meets water quality standards.

Requiring a primary supplier like the Lower Waitaki scheme to ensure there is no contamination within its race network system would require the scheme to invest tens of millions of dollars in reticulating the entire network, for little apparent public health benefit. Presumably, this cost would fall to the farmers within the scheme. The alternative would seem to be for the council to have to invest tens or hundreds of millions in obtaining a new source of water, likely to run in parallel with the irrigation scheme network, which also seems like an unnecessary cost burden on the Oamaru community.



Illustrations:

1. LWIC Ferry Road buffer pond
2. Waitaki DC reservoir
3. Map showing WDC intake from scheme canal (bottom right) and reticulation to reservoir (top left).

CASE STUDY: irrigation schemes providing raw water to Districts Councils - Kerikeri Irrigation Company

The Kerikeri irrigation scheme was built in the 1980s by the (then) Ministry of Works, as the area was recognised as having high horticultural production potential, but prolonged dry summers were affecting the growth and profitability of the sector. The scheme was designed to capture and store water during periods of high rainfall for use during low rainfall periods.

The scheme relies on ground run-off which is captured in two large earth dams (see illustrations below). The scheme is not a 24/7 supplier of water and under its Water Supply Agreements it has the right to have off-season shut-down periods for maintenance. It therefore cannot guarantee, nor deliver, a permanent constant supply of water to consumers.

The scheme provides raw water to the Far North District Council and has done so for many years. This is due to the changing land-use in and around the town of Kerikeri. What was once horticultural land has been subdivided into lifestyle blocks and housing developments, so the water from the scheme has filled a need that the Council would not otherwise be able to meet.

The agreement that the Kerikeri Irrigation Company has with the Far North District Council stipulates that:

...

2.7 The [District Council] shall be responsible for the distribution of water from the water meter and takes all liability with respect to the water from that point.

...

2.9 The water supplied is **untreated and is unsuitable for human consumption** without further treatment by the [District Council] [original emphasis].

...

7.2 The Company makes no undertaking as to the condition or quality of the water and the [District Council] acknowledges that [they] use the water at [their] own risk.



Contracting out

IrrigationNZ submits that there are situations when a drinking water supplier should be able to, in effect, “contract out” of duties and responsibilities under the Bill. This should only apply to situations where water is supplied by an entity (such as in irrigation scheme) when there is no other water available for new domestic consumers and the territorial authority has approved the supply of unpotable and untreated water to domestic dwellings.

We have provided information case studies where the respective district councils have allowed domestic dwellings to connect to irrigation supplies, where the contractual arrangements in place (through water supply agreements) explicitly state that the water provided is raw and untreated, and may be limited in quantity from time to time.

In these cases, the risk should pass from the drinking water supplier (i.e. the irrigation scheme) to the authority, who should ensure that households are not using the water for domestic purposes, or if they are, they are implementing effective end-point treatment and that continuous continuity of supply cannot be guaranteed.

CASE STUDY: irrigation schemes filling a water supply gap Earnsclough Irrigation Company

The Earnsclough Irrigation scheme in Central Otago supplies water to irrigators and landowners west of Alexandra. The scheme holds water permits to abstract from Lake Dunstan, the Fraser River, and Omeo Creek. The predominant land-use in the scheme is horticulture, as well as viticulture, sheep and beef farming, lifestyle blocks, and arable/cropping.

The scheme provides water to 130 irrigators, covering 1550 irrigated hectares.

The Central Otago area has seen an increase in peri-urban development and rural subdevelopment, often outpacing the local authority’s infrastructure capacity. This includes in the provision of drinking water. Groundwater sources in the area are also very limited.

Irrigation networks are therefore seen as a logical provider of water to new housing developments, having reliable infrastructure, good governance structures, and already holding surface water permits.

The Earnsclough Irrigation Company has filled this need, albeit reluctantly – as it was never designed or built to deliver potable water for domestic purposes.

If a new home is built, a groundwater investigation will generally be undertaken. If no suitable source can be found, the landowner advises the Council and requests the property use irrigation water for domestic purposes. The irrigation scheme will then advise the Council if it can provide the quantity of water requested. The Council will then issue a building permit to the landowner subject to a water treatment system being installed within the property.

As far as the scheme is concerned, they consider this to be something akin to a contractual arrangement between the Council and the landowner.

The scheme has always been clear with landowners that the water they supply is not to be considered suitable for domestic purposes (such as drinking) without appropriate treatment. This is clearly set out in the scheme Water Supply Agreement (see below).

However, the scheme now finds itself in a position that it will be obliged to supply a sufficient quantity of water to these properties in perpetuity and undertake a level of source water planning, and protection from contaminants that would not be required of it if it had no domestic connections – and regardless of the contractual arrangements that have been entered into.

Earnscleugh Irrigation Company Water Supply Agreement

Clause 9. USE OF WATER

...

- 9.4. The Company gives no warranty and makes no representation as to the condition or quality of the Water Supply and the Water User shall use the Water Supply at the Water User's own risk.
- 9.5. The Water User shall be solely liable for and shall indemnify the Company against any actions, claims, damages and proceedings whatsoever arising out of the Water User's use of the water.
- 9.6. The Water User acknowledges that contaminants may enter the Water Supply prior to delivery to the Water User and releases the Company from any liability relating to the delivery of Contaminated water.
- 9.7. The Water User acknowledges that the water is not a drinkable supply.



Source water protection

IrrigationNZ notes that the Bill as drafted is silent on the definition of source water protection zones or how activities within them are to be managed in consenting frameworks (beyond the proposed new section 104G to Resource Management Act 1991).

However, it does say that suppliers must provide safe drinking water and meet drinking water standards, along with clear obligations to act when drinking water is not safe or fails to meet standards, and they must have a water safety plan that contains a multi-barrier approach. In practice, this will have major implications for farmers and land users within source water protection zones. Where drinking water is drawn from surface water bodies, this could potentially affect all land users in a catchment drainage area.

IrrigationNZ **submits in agreement with that of Horticulture New Zealand** that there needs to be **clarification as to how the relationship between new drinking water supplies and the renewal of consents for existing activities** are to be considered in a consenting process.

IrrigationNZ also submits that there needs to be guidance provided as to the definition of a source water protection zone.

Transitional arrangements

Having regard to our earlier concerns regarding the capacity and capability within the sector; the very large number of small and very suppliers captured by the Bill; and the scale and pace of regulatory change facing the rural water sector due to the implementation of the Essential Freshwater policy package, IrrigationNZ is concerned that the transitional arrangements as drafted are too short.

IrrigationNZ submits that **all currently unregistered suppliers should have 24 months to register**, rather than 12.