"Summer" / 2023/ ISSUE #5

Backflow Group
WATER NEW ZEALAND

Backflow Group Newsletter

The Water New Zealand Backflow Group quarterly e-Newsletter

Kia Ora! The planning for the conference is well underway (see later) and now that Taumata Arowai is in full operation with the reporting period starting we're on course for an exciting year in water reform.

Regardless of any political positions, the new water regulator is steaming ahead with these new regulations and the new rules that come with it. Water Utilities are transforming and getting their ducks in a row and we should all do the same. Let's make it happen and protect the most valuable resource we have.

Bye Bye, Mickey

Hmmn. The first check failed to hold tight. Could be some grit in there or perhaps the washer needs replacing. I'll just open it up and have a loo- oh dear…

I once had a colleague who found a fish in a backflow valve but never a mouse and one would like to hope that water quality was paramount on the minds of the network after this poor little rodent met his end.

It all goes to show that water networks can fall victim to infiltration by all sorts of things and that's why it is important to make sure devices are rigorously tested and maintained by competent professionals.

Photo courtesy of Backflow Headquarters

WHAT'S NEW

water NEW ZEALAND
The New Zealand Water & Wastes Association Waiora Aotearoa

Committee Spotlight – Brian Brown

Brian was born in Nelson, and being a South Islander true to his heart, took to the pursuits of tramping, skiing, boating & diving like a duck to water. He started working life as a tradesman. As a mechanic with a Ford franchise he was provided with many practical skills, not least the ability to keep his old cars going!

A spell of overseas travel made him realise how Lucky we are here in NZ and a relocation to Christchurch saw an opportunity to cross over into maintaining diesel heavy equipment in his mechanical career. Dealing with complex and larger mechanical issues gave Brian a good grounding in managing a small project from end to end. The ultimate project came a short while later when he met his soon to be wife Margot, married her and raised three kids. Living on the waterfront in New Brighton and finally owning a first home together in Christchurch City within the four avenues, Brian retrained as a professional engineer, studying Natural Resources Engineering at Canterbury and Lincoln Universities.

On the completion of his degree Brian moved his family to Tauranga and joined what was then the Tauranga District Council. During the six and a half years working for them he completed many projects, network modelling of the water supply network, design of specialist launching/retrieval chambers and planning and carrying out of the pigging of the twin raw water pipelines supplying the Joyce Road water treatment plant. Project planning and operation management of the high-profile developments became second nature to him but a desire to gain further experience, saw him work Excel Corporation as contract manager. During this time he managed the successful team constructing three waters pipelines, road surfacing & associated landscaping.

A further move to Clearwater Hydro, refurbishing, constructing and operating three micro hydro schemes across the central North Island saw him expand his skills further. He then dipped his toe into Rotorua Lakes Council, again working in the three waters operations space, managing compliance, resource consents and the maintenance contractor.

Brian then felt the call of Tauranga City Council and took up the mantle of Water Network Engineer, focusing on backflow and water operations. Taking over from the Godfather himself, Graeme Mills, he has helped to make the Tauranga Model the gold standard in New Zealand backflow prevention.

With the Three Waters Reform fast approaching, Brian believes that this presents opportunity for the sector; "I am hopeful that this will improve the country's three waters infrastructure and provide better quality with the reliable delivery of safe potable water. Better designed and managed water systems are a must if we are to future proof our networks."

When he's not managing the most successful backflow programme in the country Brian enjoys getting out and doing stuff on the house and yard (he really is a South Islander!). He has completed four Ironman endurance triathlons in Taupo, enjoys skiing and snowboarding (mostly Mt Ruapehu, Whakakpapa & Turoa ski fields) and if you are ever about on the slopes of dusty powder, you may just see him performing a Nollie 360.

Group Workplan Update

1. WS-014 / WS-023

The 023 Committee has not met for some time. The 014 Committee has met and is in discussion about several backflow adjacent topics including domestic water tanks, which are a huge risk.

2. G12 Update

Most private dwellings remain exempt from some annual testing regimes even though they may pose a risk to the public network.

3. Code of Practice

Brian Brown is heading up a working group to re-work this to make it truly fit for purpose. New drawings have been produced and reviewed by the group. These will be finalised in April.

4. Survey Unit Standards

The group have met with Belinda Cridge from Water New Zealand to look at development of the course and see what the definitions are for surveys both inside and at the boundary.

5. Backflow Rules

The Chair is putting together a matrix for all Acts and Statutes that concern backflow. This will be used as a companion piece to the Rules.

6. 2023 Conference Planning

The Conference will be held at the Parnell Hotel & Conference Centre in Auckland. A call for abstracts has been made. Details are available on the new Water New Zealand website.

Next meeting will be 20th April in Auckland.

Update From the Chair

Kia ora!

It would be a safe bet to say that "more changes are coming" in the water industry.

And who knows what shape the final structure will be when the dust finally settles?

Regardless, there is a lot of work to do in the Backflow Prevention area from regulations, training development and education through to the management and installation of devices across the country. This is a monumental undertaking and a direction the country must go in.

In regard to this I would like to note our Backflow Group are structuring a great conference! "Drinking Water Protection - from the source to the last flowing tap" will be the overarching theme and the event will be held on the 1st and 2nd August at The Parnell Hotel and Conference Centre.

The call for abstracts closes on **30th April**, click the link below to be taken to the conferences event page.

https://www.waternz.org.nz/Event?Action=View&Event_id=1110

We're looking for some specific linked themes but will also accept some wildcard ideas. So long as the presentation concerns water protection then all abstracts will be welcome!

We will also be holding our AGM at the conference, and we would like to see you there for that. So please consider if you might like to join the committee or nominate someone who you think could contribute to the group. This committee has a great opportunity to shape the future of the industry in a way that benefits us all and protects our most valuable resource and we always welcome passionate people to make that happen.

Look forward to seeing you there,

Paul van den Berg

Safety Last

In New Zealand we don't like to see our backflow devices. They are ugly, they remind us that things can go wrong and more importantly they are an asset we must maintain and that's a burden to us. The best thing we can do with them is invoke the "Blinkers Clause" and lock them away either underground, behind a door or in a ceiling space. That way we don't have to be constantly reminded of them, since out of sight is always out of mind.

In other nations, backflow devices are a necessary part of the water function and are both highly visible and highly respected. Having a large RPZ outside of your property tells people that you care so much for their health that you are willing to show it! Your containment protection is right there in the open for people to see and for compliance inspections to mark it as fit for purpose. There's a certain amount of price in that, not least for the engineering involved.

But in New Zealand we have a different view and there are three elements in this desire to lock away the devices, especially when it comes to larger devices or ones in confined spaces.

First, in the design stage the architects or structural engineers make the decision to hide these devices. Why? Well, they are not aesthetically pleasing, and they mess with the feng shui of the building so naturally they will push hard to move them out of sight. That must be challenged to make sure the devices are in a place that is both safe to access and meets the installation standards. They could make a feature out of them or even design a cage or enclosure that is pleasing to the eye but more often than not, this entreaty will fall upon stoney ground, and the architects will have the ear of the developer/property owner and make their persuasive arguments in favour of the invisible backflow device.

Second, the property owner or maintenance person must live with that decision and make sure the device is maintained, no matter how difficult this becomes. For property owners there is a real Health and Safety risk as persons entering the property should be properly inducted and should not be placed in situations that means they must take risks with their safety. It is therefore incumbent upon them to think about the consequences of the design stage decisions and fully mitigate the risks accordingly. With luck they will realise that the sensible option is often the safest, even if it enrages the architect.

Third, the person maintaining or testing the device needs to assess if they can safely access the device. Are they entering into confined space? Is the device 4m up a ladder or in a roof space filled with horse eating spiders? This becomes an issue for everyone in the chain if it all goes wrong. Many testers are solo-operators and, if entering confined spaces or working alone at height, this could have dire consequences in the event of an accident.

So what can we do?

As an industry and as professionals in the field we can push back and ensure that devices are placed above ground (if at the boundary), especially for those larger than 40mm. Naturally, all RPZ devices will be above ground regardless but having larger boundary devices placed in an easily accessible situation will save the property owner money, will reduce the likelihood of accident or injury to the tester and will enable the devices to be future proofed in the event of extreme weather.

The very recent weather events are merely a taste of what is to come for us all in the future. Devices that are below ground and under water cannot be accurately tested or assessed. As these events are becoming more common, the industry must adapt, starting with our installation standards.

For internal devices we can use the appropriate legislation to ensure they are installed in places that are easily accessible and able to be tested safely. And where we have an issue there must be an appropriate and highly transparent method of communicating with the regulatory bodies involved.

I once spoke to an IQP who raised concerns with the owner about such precariously placed devices and his punishment was removal from any future work for the compliance agency after the owner complained to them. He was deemed a troublemaker because the compliance company has but one mission; to keep the owner happy so they get the business. This is unacceptable but is sadly an all-too-common occurrence.

Another IQP was told to test a device in a confined space and when he said that he would need a second person and a gas detector to complete the work he was told "test it now or you will be fired". He walked off the job, rightly putting his own health and safety first.

IQPs are bound by a code of ethics and should not be punished for doing the right thing. They should feel empowered to report issues and if this cannot be done via the owner or compliance agent then the local council or even MBIE should have a reporting mechanism that allows them to bring the problem to light without fear of recrimination. Failure to have this reporting and escalation can have consequences for the next person testing.

For my own area, I have a whistleblower policy but that is only effective at the boundary. An IQP can confidentially come to me with concerns and I will ensure that a site investigation is undertaken without them ever being implicated.

In the case of boundary devices I have the Water Services Act 2021 at my disposal but for issues that are beyond the boundary I can only pass this on to my Council colleagues in the hope that they will act upon my concerns.

Notably this also puts me in the firing line should anything happen in the future. If anyone is harmed as a result of inaction over an issue that has been identified then everyone who knew about it is culpable. This means the designer, owner, property manager, compliance agent, IQP, BWOF technical person and even the person who re-surveyed the property must account for the steps they have taken and ask "could I have done more?".

There's a Japanese word that doesn't translate very well to English that describes this situation. It's "giri". Roughly it means "duty" or "obligation" but it can also mean a "debt or burden" that we carry. Once we know there is a problem we have this giri until that problem is solved. It's a social and moral obligation that must be fulfilled.

And there is an easy solution to all of this; place all devices above ground, in easily accessible locations and come to love them for the protections they bestow.

And if we don't have the appetite for that then we're just waiting for the day it all goes wrong and carrying that giri with us as we go.