Te Kaitiaki Wai

Wellington Water's official magazine | Spring 2019

Pumped for growth

Relieving pressure in Wellington's CBD

Putting customers at the heart of everything we do

We launch our Customer Operations Group

Innovative pipe trial

Project trials seismically resistant pipe

Wellington Water

Our water, our future.

Tōrea (Variable oystercatcher) wandering along the beach.

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KIA ORA

where the rubber meets the road

He wai, he wai
He wai herenga tāngata
He wai herenga whenua
He waiora
He wairua
Tis water, tis water
Water that joins us
Water that necessitates the land
Soul of life
Life forever

Realising the potential of our Service Delivery Strategy

On Tuesday, 27 August we celebrated reaching a key milestone in our Service Delivery Strategy by welcoming our partners, contractors, consultants, and suppliers through a pōhiri which formally invited our guests to become a part of our Wellington Water whānau.

Three years ago we embarked on the development of a region wide procurement programme because we wanted to bring a strategic approach to the way we deliver our services across the region.

We knew if we got this right the result would be significant costs savings, improved service delivery, and a better customer experience as our region grapples with the demands of land development and increasing population growth.

The celebration of this milestone, signals not only the completion of the strategy, but also that now is where the rubber meets the road.

Over the coming months embedding ways of working, and creating a shared understanding of our culture and values, will be important cornerstones to making sure we build strong and healthy relationships within our Wellington Water whānau.

We know that our wider whānau of partners, contractors, consultants and suppliers, are committed to this challenge, and we're looking forward to putting the work in together. Now and into the future.

Representatives from across our Wellington Water family hongi.

Over 300 people took part in the event held at Lower Hutt's Town Hall.

Pekaira performs a karanga (call) on behalf of mana whenua (hosts) to invite our guests to join us.

Kara Dentice performs a kaikōrero (speech) on behalf of mana whenua (hosts).

Ben Matthews performs a kaikōrero (speech) on behalf of manuhiri (guests).

putting our customers at the heart of everything we do

Wellington Water launches Customer Operations Group.

Service Delivery – Eastern Drainage team. From left to right: Mike Little, Sio Felise (CCTV Rongotai moved to Pomare Drainage), Jan Christensen (Team Leader), Vili Pritchard, Jorgen (Yogi) Pritchard.

A big part of our alliance partnership approach is about making sure our new maintence and operations service delivery partner Fulton Hogan is truly a part of our business. Our new Customer Operations Group (COG) was officially launched on 1 July.

We've had a few bumps on the way as we settle into this new way of working – but the responsiveness and approach to resolving issues and continuing to put customers at the heart of everything we do has been demonstrated by the level of skills and expertise we have across the Customer Operations Group, and the wider Wellington Water whānau.

We've been pleased with how despite these bumps, the transition has been relatively seamless for our customers. This has been a massive effort from all involved, particularly the crews out on site doing repairs and important work, as well as our customer hub team who have been managing customer calls, complaints, and queries all while learning about the business and how we operate!

A huge thanks goes out to all who have contributed to the launch. This however, is only the beginning as we support and embed the people, systems, and customer culture.

Ain't no party like a Customer Operations Group party!

Throughout July, we held a series of breakfasts at each of our depots (Pomare, Porirua, and Rongotai) to celebrate and welcome our new COG team members to Wellington Water. It was great to see people from throughout the Wellington Water whānau as well as councillors and council officers at each depot welcoming the new teams.

Customer Hub team. Left to right: Adele Lowen, Christi Britton, Christine Arendse, Rachel Ebbit, Glenis Bruin, Grant Ngawera. Not pictured: Jo Howey, Sandy Kapo, Ian Dennis (Customer Experience Manager).

HINT: If you want to fit in, try something in orange!

Northern Service Delivery – Drainage team. From left to right: Richie Hadfield, Harry Paul, Jason Tipa. Missing from the photo Iain McAfee (Team leader), Tito Kisona.

Southern Service Delivery – Drainage team. From left to right: Alistair Forsyth (Service Delivery Manager), Damas Turoa, Matt Day (Temp), Malcolm Giles (Team Leader), Brent Faa'amoe, Samuel Daniel, Joe Allan-Moetaua, Hamish Quigg (Temp).

Southern Service Delivery – Water team. From left to right: Alistair Forsyth (Service Delivery Manager), Jason Dearman, Donny Moses (Temp), Cameron Hawkins-Matthews, Ben Matthews, Danny Haenga, Donny Haenga, Robbie Miller, David Henry (Team Leader).

Hafine Aisea of the **Northern Service Delivery – Water team.**

Eastern Service Delivery – Water team. From left to right: Rory O'Meara, John Ashford, Alastair MacDonald (Service Delivery Manager), Kini Pepe, Glenn Rangi (Team Leader), Lew Raihania, Norm Fa'aliga. Front: Vili Sitake Absent: John Gatu.

Eastern Service Delivery. From left to right: Sean Riley (Major Pipes and Fabrication team), Alastair MacDonald (Service Delivery Manager), Adele Lowen (Administrator), from the depot in Pomare.

Northern Service Delivery – Utilities team. From left to right: Steve Mossman, Blair Dynan (Team Leader), Scott Woodhouse, Gideon Stanley, Tony Ayton, Rob Jamieson. Missing from the photo Ben Leary, Jayden Dobson, Duncan Jordan, and Nathan Hilder.

Northern Service Delivery – Water team. From left to right: Bob King, Brad O'Rourke, John Cook (Team Leader), DJ Tairea, Whare Raponi, Ted Ripia. Missing from the photo Maf Laufisio.

Northern Service Delivery – New connections and reinstatement team. From left to right: Lenard Bryant, Majisty Afiu, Ray Ritchie (Team Leader), Lance Petaia, JT Singh.

Southern Service Delivery – CCTV team. From Left to right: Alistair Forsyth (Service Delivery Manager), Tiputa Samasoni, John Lodge, Anand Kumar (Team Leader), Simon Allen Jr, Metua Williams. Missing Simon Allen Snr.

We're everywhere and where we need to be

Service Delivery – Northern team (Porirua depot)

Our Service Delivery Northern team has four core teams: water, drainage, utilities, and reinstatements. The team is focused on delivering the best service to our clients and customers, from Pukerua Bay to Johnsonville.

Service Delivery - Eastern team (Pomare depot)

Made up of four core crews: water, drainage, utilities and pipelines/fabrications. They're all looking forward to developing great ways of working together to deliver three waters services to their communities.

Customer Hub team (Wellington Water HQ)

The Customer Hub's role within the Customer Operations Group is to provide the main point of customer and our client councils' contact for Request for Service (RFS) issues, ensuring that they are appropriately prioritised, planning is engaged as needed, and resources are dispatched to resolve or assess the RFS issue. They also make sure that customers, client councils, and the wider community are kept up to date on the impacts of these service interruptions.

Service Delivery - Southern team (Rongotai depot)

Made up of water, drainage, and the CCTV crew. Their role is to maintain the three waters services in the Southern region.

2019-22

Statement of Intent measure **update**

We'll deliver on our service delivery strategy by implementing the alliance, implementing the contractor panel, and introducing a consolidated wastewater treatment plant contract **(SOI Measure 43).**

UPDATE: The full Alliance agreement was signed on 15 May 2019 and the Alliance went live on 1 July 2019 as planned.

From left: Colin Crampton, Cynthia Brophy, Mike Tana, Alexandre Lagny, and Taku Parai at the Wellington Water/Veolia function.

new partnership sets scene for future of wastewater

The initiation of Veolia's contract to operate and maintain the four wastewater treatment plants that serve metropolitan Wellington was marked by a function held at Gear Homestead in Porirua.

The 10-year contract began with Veolia assuming management of the Porirua plant from 1 July 2019. Guests at the function included representatives of mana whenua, Ngati Toa, the Mayor of Porirua Mike Tana, councillors and staff from Porirua City Council and Greater Wellington Regional Council and Regional Public Health as well as staff from Veolia and Wellington Water.

Taku Parai, chairperson of Te Rūnanga o Toa Rangatira, spoke a karakia to open the event. Following that, Alexandre Lagny, Veolia New Zealand Group General Manager, said his company was looking forward to building partnerships with the groups represented in the room, especially mana whenua and the community. He highlighted the importance of operational safety and environmental issues that everyone in the community shares in terms of operating this asset.

Ngāti Toa representative Naomi Solomon spoke of the importance of the land and harbour to her iwi and the work required to ensure that environmental issues are addressed, in particular the health of the harbour.

Wellington Water's Colin Crampton also addressed the gathering. He apologised for the overflow that occurred at the plant in October 2018. He noted the potential technological improvements possible through the move to Veolia, which should enable innovation and improved systems.

He said partnership with Ngāti Toa was important for the Wellington Water family, which included Veolia and their employees. He also mentioned that it was pleasing that the new contract had been achieved at no additional cost, in an economy where there is a lot of pressure to increase rates.

The partnership approach was also seen as very positive by Mayor Tana, as was Colin's mention of and apology for the October overflow.

Wellington Water Board member Cynthia Brophy, who was also at the event, said occasions such as these were important for building stakeholder relationships.

"Everyone valued the opportunity to be there and get to know each other as well as to discuss common issues," she said. ■

2019-22

Statement of Intent measure **update**

We'll deliver our service delivery strategy by implementing the alliance, implementing the contractor panel and introducing a consolidated wastewater treatment plant contract **(SOI measure 43).**

UPDATE: The consolidated wastewater treatment plant contract has been signed with Veolia and has a staged go live across the plants during the 2019/20 financial year.

collaboration in action

With our new contractor panel starting work in July we've been busy allocating work for them to get stuck into.

Because of resource constraints and the amount of infrastructure work in New Zealand (in particular the Wellington region) we've seen significant price increases in the market. We're pushing our contractors and consultants to demonstrate how we, and our customers, are receiving value through our projects.

The way we organise how our work is done, through our consultants and contractors, is a key factor in value. Our service delivery strategy outlines the changes in the way we'll work with our contractors. At the heart of this strategy is a desire to take the same approach to common work across the region. We've laid out plans for our alliance, contractor panel, and consolidated wastewater treatment plant contract which we're going to deliver on over the next two years.

We've already had some early successes which demonstrates how we will get value from our new panel model.

Smart thinking cuts cost of water main

We're planning to renew the rider-main in Aniseed Grove in Upper Hutt, which involves renewing 450 metres of small diameter asbestos cement pipe in the berm. Following some initial potholing the option selected was to remove and replace the pipe and surrounding soil on the current alignment. This was also based on input from Upper Hutt City Council's Roading team, and congested services indicated on service plans for the footpath.

Through our contractor panel model the work was allocated to CCL. Despite the core contractor rates being as expected, the price received was significantly higher than the project budget due to the uncertainty around the asbestos management required. To find a better value option, the consultant (GHD) with CCL worked together to do more potholing on an alternative alignment. They discovered that the services on the footpath alternative were actually in very different locations than indicated in the service plans.

When CCL submitted a price for directionally drilling along a new alignment, the cost was actually lower than the original project budget!

As well as being cheaper, this alternative option provided even more value, as it presented a much lower risk profile than the original option has a much lower customer impact (with a shorter construction timeframe and much shorter supply disruptions), and has a reduced impact of public perception by not having workers wearing full asbestos coveralls for extended periods.

Under the old approach, of tendering and competing individual works, we would have struggled with an unsuitable option that just drove up costs, impacted our customers significantly, and exposed our contractor partners to unnecessary risks. But now, with our panel approach, we're already seeing our consultants and contractors openly working together in collaborative ways to deliver better value for Wellington Water, our customers, and client councils.

2019-22

Statement of Intent measure **update**

We'll deliver our service delivery strategy by implementing the alliance, implementing the contractor panel and introducing a consolidated wastewater treatment plant contract **(SOI measure 43).**

UPDATE: The contractor panel was established 31 December 2018 and went live on 1 July 2019.

region weighs opportunity to extend shared service model

Wellington Water's client Councils are considering whether to provide services in the Wairarapa.

Wellington Water assisted with temporary water supply to Martinborough through emergency water bladders during the water quality issues in February.

South Wairarapa District Council could become the sixth shareholder of Wellington Water, after the Water Committee agreed to recommend this proposal to its existing five shareholders.

The Water Committee comprises a representative from each shareholder council (the Porirua, Lower Hutt, Upper Hutt and Wellington city councils, and Greater Wellington Regional Council), and is chaired by Lower Hutt Deputy Mayor David Bassett.

Mr Bassett said whether the proposal went ahead was up to the individual council members.

"Each council will vote on the recommendation at their meetings through July and August. If all vote in favour, Wellington Water could begin providing water management services for the South Wairarapa District Council shortly thereafter. The Committee thought this would be a good thing, but it has to be decided by the individual councils." ▶

Filters similar to these will extract manganese from bore water supplying Martinborough, extending the ability to provide safe drinking water..

Wellington Water staff have already been involved in helping the South Wairarapa council resolve drinking water contamination and quality incidents affecting Martinborough.

Two incidences of contamination resulted in Wellington Water staff helping out the local team with network flushing and investigations. No conclusive source for the contamination was found and, as a result, the council has decided to introduce a long term disinfection programme.

Part of this involves installing new equipment to filter manganese from the ground water. High levels of this element in three of the four bores used to supply water to the township react with chlorine to discolour the water.

Ian McSherry, who is leading Wellington Water's work with the council, said the project to install the manganese extraction plant was on track to be working by the Christmas holidays – a time when the population of the district can more than double.

"At the moment we're meeting demand with water from just the one well which has lower manganese content, so there is no discolouration," Ian said. "Until that plant is fully operational though, we'll be asking locals to be careful with how much water they use, particularly when the weather warms up."

Wellington and Sakai City, home to Kurimoto Ltd, are sister cities, so April's event doubled as a celebration of 25 years of the sister city relationship. Wellington Water was well represented at the event with Tonia Haskell, Group Manager for Network Development and Delivery, Gary Cullen, Design Team Leader, as well as James Craig, Project Manager and Designer for the trial project in attendance. Wellington Water Network Strategy & Planning Group Manager, Mark Kinvig also attended the event, where he spoke about the importance of resilience in the Wellington network.

innovative pipe trial

A water pipe project in Porirua has provided the opportunity to trial a new type of seismically resilient pipe.

The manufacturer, Kurimoto of Japan, say the pipes are able to sustain severe ground movement during seismic events or in the case of weak ground subsidence, thanks to its flexible joints, which allow compression and expansion of the pipe without the joint separating.

The Porirua Branch Pipeline Extension project is designed and managed by James Craig from our Design Team and involves installation of a 400 millimetre diameter pipe from Cleat Street to Conclusion Street, a distance of about 830 meters. It is being installed to significantly reduce water pressure losses at times of high demand so that the high-level reservoirs in Porirua are able to be filled at all times without additional pumping, including when demand is high. It will also provide increased resilience for the network in case of an emergency and for maintenance work.

Gary Cullen, Design Manager at Wellington Water, says that his team have been talking to Kurimoto for about a year now, with support from their consultancy panel through GHD. In that time, they have completed a technical assessment of the new seismic resilient pipe, assessing not only its strength and flexibility, but ensuring it meets with New Zealand standards and that it is compatible with the network.

"We needed to assess how it would fit in with our other pipes, what spare parts we would need to store, and to ascertain that the pipe does what Kurimoto says it does," says Gary.

"The next phase was to test the constructability of the pipe – to test actually laying the pipe, to see what it's like to work with and fully understand the practical aspects of working with this pipe. This is the first time the pipe system has been used in New Zealand, and installation at the Porirua site will be complete by July."

The test section of pipe comprises a 140 meters stretch of the new pipeline, while the remainder is regular ductile iron pipe. Contractor G.P Friel Limited began laying the pipe in mid-June, with support from Wellington Water's in-house pipeline team.

"We've now got a draft report from our experts that suggests the new pipe will meet our needs as well as New Zealand standards, and the indications from the team on site are also good," says Gary. "The guys are finding it easy to work with; it doesn't need as much protection while being handled as it is well protected as part of its design and fabrication." ▶

In April, Wellington Mayor Justin Lester hosted a reception to officially welcome the Kurimoto Delegation.

The Kurimoto pipe has a triple layer of external corrosion protection coating, which eliminates the need for PE sleeving. Layer one is a zinc-based alloy spray, layer two is a sealing treatment, and layer three is a synthetic resin coating. There is also an internal layer of epoxy powder coating, oven baked onto the pipe.

"The external coating provides 100-year durability, and the lining inside has a surface friction co-efficient similar to plastic pipes, allowing more water down the pipe," explains Todd Randell, business development manager at local distributor Hynds.

Earthquake resilient pipe technology is used throughout Japan as well as in California and other places with active fault line crossings. Todd says it's also good for ground prone to liquefaction and subsidence, soft ground, pipelines crossing bridge abutments and tsunami-prone areas.

"The pipe socket allows for both extension and compression as well as angular deflection. It also prevents joint separation," he says. "This means the pipeline can move in a seismic wave, staying intact during severe ground movement."

Or, as Gary explains, the pipe can move longitudinally in a concertina-like fashion – like a shock absorber at each joint, and the flexible joints allow six to eight degrees of movement at the joint.

"This flexibility doesn't compromise the pipe's strength," he says.

"The current Type-NS pipe system has been used in Japan since 1995 with no failure (the previous seismic model called Type-S had been used since 1975). We can see how well they coped during the devastating 2011 earthquakes, where they performed beyond expectation: The pipes moved significantly but stayed intact."

It's this kind of performance that is seeing them used in pipelines connected to critical services – hospitals, civil defence headquarters, and government buildings, etc. throughout Japan.

"Our next step is to look at the need in our network and see where it could benefit from these pipes," says Gary. "We will then work on a strategy for where it can be employed to get the most value from it."

Gary says that they are more expensive than regular ductile pipe, however, he says an assessment shows that this additional cost is less than 10 percent of the overall project costs.

"We are open to bringing in proven technology from around the world and this was an opportunity to work with a well-respected Japanese manufacturer of earthquake resilient ductile iron pipe.

"It's a good-quality system and we expect it to last its design life of 100 years."

Kurimoto Ltd manufacture an earthquake resilient pipe, which allows the type of joint movement which can absorb severe shocks. It is incredibly important for us to develop high quality resilient options for our region's pipelines. We are currently using this pipe in a trial project, the Porirua Branch Extension, which will be completed between April and early August.

connecting young people with water

A lot of our community education work is achieved by our marketing campaigns, media coverage, and events we attend, but another core focus for our Community Engagement Team is developing resources for schools, so that students can learn about the three waters.

Primary school education programme

We're currently evaluating and rewriting our primary school education resource. This resource gives teachers in the Wellington region specific information needed to pass on important messages around water conservation, treatment, delivery, and management.

We're hoping to relaunch our new and improved version in time for the 2020 school year.

School visits – a chance for our experts to connect with students

We've been busy attending events at a range of schools with support from various experts in the three waters (drinking water, stormwater, and wastewater). These visits are a great opportunity to connect and engage with young people and provide them with some insight into something that they often take for granted – water.

Wellington High School - Future Cities Conference

Year nine students at Wellington High School were involved in the Future Cities Conference, a project where students create conceptual sustainable cities. The purpose of the conference was to highlight the challenges of sustainable town planning and the skills and processes that can be used when planning for the future. There were a number of presenters such as Wellington City Council, Greater Wellington Regional Council, Enviroschools, First Retail, and Papa Taiāo.

One of our water engineers, Francis Leniston, presented on water engineering and its role in city planning in the past, and how we're looking to do things differently in the future. His presentation covered topics such as urban design, ecology and water engineering that uses green infrastructure to improve water quality, biodiversity and future urban spaces.

Students were given a 'Water 101' lesson where they delved into the history of how drinking water was provided in ancient Rome, and how wastewater was managed in industrial London. Students discussed how these solutions made our cities safe to live in, but at a cost to the water quality of our streams, wetlands, harbours, and estuaries.

After a quick lesson on all things water and engineering, students were tasked with becoming city planners for the day - creating a water sensitive city island in the Cook Strait – with the help of a glue stick and paper!

History of how drinking water was provided came from ancient Rome.

Drinking water in London was contaminated with sewage and industrial waste, resulting in many deaths due to cholera.

Map from 1854 showing area with people were affected with cholera.

Innovative Young Minds - Te Marua water treatment plant tour

The Innovative Young Minds programme is designed to encourage young women to explore the STEMM sector - science, technology, engineering, mathematics and high-tech manufacturing.

Running throughout the July school holidays, the week-long programme, full of field trips and other learning experiences, is open to female Year 11 and 12 students from throughout New Zealand. We were happy to facilitate tours of one of our drinking water treatment plants to provide the group of young women an opportunity to learn about water treatment and engineering in the water industry.

Duheine Myburgh, Senior Engineer Investigations hosted two groups of 20 students from the programme through the Te Marua water treatment plant, discussing the treatment process, as well as providing insight into how engineering expertise can be utilised, and the different career pathways engineering qualifications can provide.

Walking out to the huge clarifiers.

Massive pipes provide drinking water to the Wellington region.

Duheine explaining the treatment process.

Seatoun School action day

Seatoun School recently held an action day, which focused on the environment and how the students could put processes in place to help protect, improve, and enhance their environment.

The day included replanting native bush around the school grounds, building gecko and weta hotels, installing LittaTraps in stormwater drains to prevent rubbish and other nasties from flowing into the ocean, as well as painting characters around stormwater drains reinforcing the message that everything in the drain flows into the ocean.

It was a stunning clear day, resulting in a lot of action taken! There are still a few more things the kids want to complete, so they are continuing to work on their improvements and artwork around the school. We're looking forward to keeping up with their progress, and hope to see their creative hard work inspire other schools in the region. ■

Replanting native plants around the school grounds.

The stormwater drains being painted with sea creatures.

news in brief

Lending a hand to support Friends of Petone beach.

A bunch of Wellington Water staff popped across the road to the Petone foreshore, where we supported Friends of Petone beach for a planting day in early August.

Our crew got stuck in straight away, planting a total of 810 plants along the western end of Petone beach.

These plants help to protect the dunes from storm surge damage and rising sea levels, reduce the amount of sand blown onto properties along the beachfront, and restore the native biodiversity.

After planting, they are protected with netting so the pesky rabbits don't get a hold of them – giving them a chance to grow.

Graeme of Friends of Petone Beach giving the crew the rundown of the day.

is it a bird, is it a plane...

A wastewater manhole renewal in Mortimer Terrace was the very last task of a renewal project begun in June 2019. The steep terrain meant that the best option was to use a helicopter to bring in a heavy load to site – thanks to Wellington Helicopters who helped our contractors out with this.

We have lift off! Given the challenging terrain, the helicopter is the ideal method to transport manhole materials to the property and remove spoil out.

Gold Quill Award for Community Engagement.

accolades for work well done

The Dixon Street pump station and rising main is a winner! The project, which used innovative segmental caisson design, took out the Best Public Works Project, Less than $5 Million award at the IPWEA NZ conference! A fantastic result for the team: Wellington Water, Wellington City Council and our project partners Brian Perry Civil.

Dan Ormond, from Latitude, was very proud to receive an IABC Gold Quill Award for Community Engagement on the consent phase of Wellington Water's Omāroro Reservoir in Mt Cook.

5000 litre water bladder.

community infrastructure resilience

We've been working with our client councils and central government to establish community infrastructure resilience through the development of an above-ground emergency water network.

Made up of 22 community water stations spread across the metropolitan Wellington region, the above-ground emergency water network will supply more than 300 strategically-placed water collection points following a major disaster that damages our underground drinking water pipelines.

We've now installed and commissioned all of the community water stations and supplied the water distribution equipment to our client councils to enable them to manage their communities' disaster recovery.

Day 0-7: household resilience is key!

In an emergency, the first thing people need to rely on is themselves and their families – so storing water and food is a must for every household. We recommend our customers store enough water (20 litres per person per day) for their entire household (including water for pets) for at least seven days.

Day 8+: above-ground emergency water network

Following a major disaster we will be focussed on getting our water services back up and running, but the time this takes will depend on the damage to our infrastructure.

To make sure people are able to access water from day 8+, our above ground emergency water network will be activated. People will be able to collect a daily supply of 20 litres of water per person, from community water collection points.

The single best thing people can do to help Wellington survive and thrive after a major earthquake is to be prepared. We've been working with the Wellington Region Emergency Management Office (WREMO) and Regional Public Health to make sure our messages are consistent and reach as many people as possible.

For more information about how you and your household can get prepared visit: **getprepared.nz** ▶

Show and tell – sharing CIR with the community

Throughout June and July, we've been supporting WREMO at their Community Hub Exercises across the region, as well as at a range of other community led events.

These events provided an opportunity to promote our household resilience messages, as well as demonstrate how the above-ground emergency water network works.

Johnsonville Park community barbeque

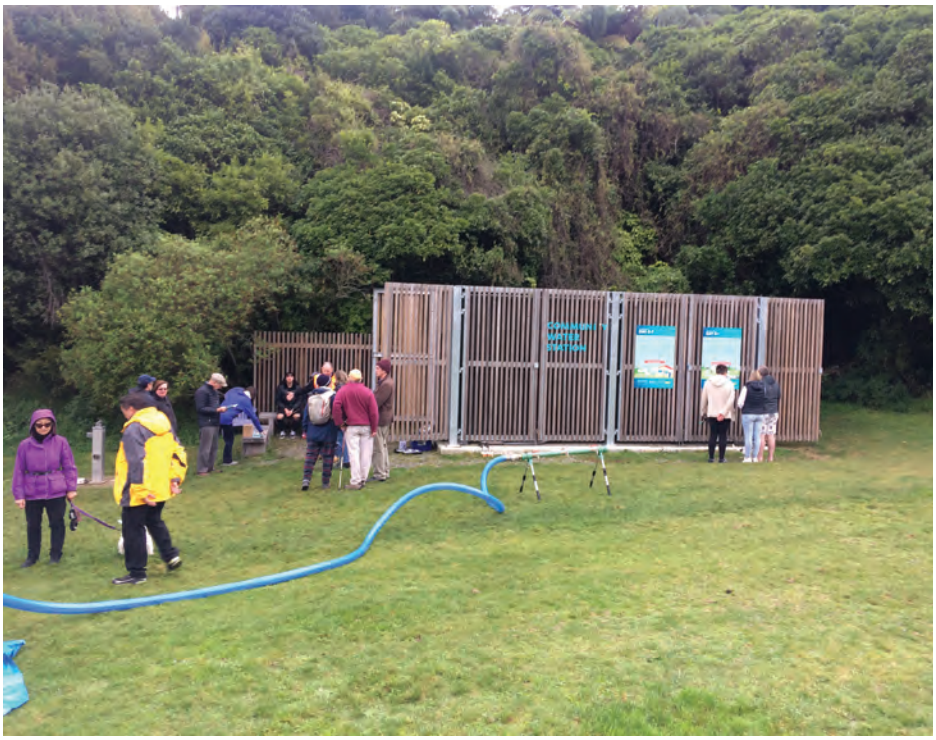
In early June we joined Councillors Malcolm Sparrow, Jill Day, and Peter Gilbert at Johnsonville Park (Truscott Ave, Johnsonville) for a community barbeque aimed at helping to raise funds for the Johnsonville Foodbank. This was the perfect opportunity for us to open up our community water station, which is located within the park.

Despite the rain, members of the community were keen to take a look around the community water station and learn more about how the above-ground emergency water network will operate following a disaster.

Community water stations are strategically located across the metropolitan Wellington region. At some sites we drilled new wells (bores) to source water (like at Johnsonville Park), and at other sites water will be taken from streams. The water stations are 'water treatment plants in a box'. Each community water station will have a 20,000 litre emergency water bladder and some sites will have two, depending on the size of the community.

These giant bladders act as an onsite 'reservoir', and are filled with water once it has been extracted and treated by the community water station.

The reservoirs are used to fill smaller bladders for distribution at community collection points.



Wellington Water's Nick Hewer-Hewitt explaining how the water stations work.

Councillors Malcolm Sparrow, Jill Day, and Peter Gilbert keeping the food dry.

Engineering delegates take a tour of emergency stations

The Institute of Public Works Engineering Australasia (IPEWA) conference was held in late June at the TSB Arena, in Wellington. This year's theme was Delivering on Reform: Future Infrastructure Perspectives.

We took this opportunity to host the opening tour and invited delegates along to our Huntleigh Park community water station to see the equipment set up.

Nick Hewer-Hewitt demonstrated the type of equipment used, and described how the stations are designed to function following a large scale emergency.

We received feedback from the conference organisers that this tour was a key highlight of the conference for many attendees.

Nick Hewer-Hewitt explaining how the equipment works to conference attendees.

Demonstration day – Te Marua

In early July, we held a demonstration day at our Te Marua drinking water treatment plant for members of staff from WREMO, our client councils, and Kiwi Rail to view the equipment, see how the equipment is set up and how it's designed to function.

Wellington Water's Nick Hewer-Hewitt explaining how a truck carrying a small bladder can be used to transport water from the community water station to the drum shaped community collection point bladders.

The tap stand and hoses attaching it to the bladder. This would be set up in the street or in a community emergency hub for members of the community to collect their daily water allowance.

2019-22

Statement of Intent measure **update**

Our customers will be resilient in the event of a natural disaster because we'll improve the number of households that drinking water stored and a have a plan for the safe disposal of their wastewater **(SOI measure 9**).

UPDATE: Our customer survey in June 2019 showed an increase of 16 per cent in the average amount of water stored. Increasing from 27 to 31.3 litres. Of those surveyed 41 per cent had a plan for the safe disposal of their wastewater.

Inside the newly complete pumping station at Dixon St.

pumped for growth

Wellington's first new central business district pump station in 40 years is complete.

The completion of a brand-new underground wastewater pump station on the corner of Victoria and Dixon Streets was no easy feat.

With an estimated 7300 new dwellings predicted to be established in the central city and a population increase of 21 percent expected over the next 30 years, Victoria and Dixon Streets have been recognised as a potential residential and commercial hub. Not only will the new Victoria and Dixon Street wastewater pump station relieve pressure on other pump stations around the city, it will also reduce the chance of overflows into the harbour and cater to a growing population.

Close collaboration between Wellington Water and Wellington City Council culminated in a cutting-edge design with the city and its communities at its core. Given how close the construction site was to buildings, roads, and trees, it was important to tackle the job with as little disruption as possible for those living, working, and commuting in the bustling neighbourhood nearby.

Minimising disruption and building in a central location presented a colossal challenge, requiring an innovative approach. A technique known as segmental precast caisson allowed the team to dramatically reduce the construction footprint and noise and vibration effects.

Using pre-cast concrete segments shipped in from the United Kingdom, construction started at ground level, and worked downwards. Concrete segments were assembled on-site to form rings, which were then pushed below ground level, to form the wall of the 8-metre-deep shaft.

Wellington Water Project Manager Tristan Reynard said that the approach was new for everyone involved, and there's been a real sense of collaboration throughout this project.

"I'm pleased to say that pushing beyond the normal methodologies has had a great outcome", says Tristan.

The ingenious approach behind the construction of the pump station was recognised at the Civil Contractors New Zealand Wellington / Wairarapa Branch Construction awards.

Project partner Brian Perry Civil picked up the GBC Winstone award for projects over $2 million. The judging panel noted that this new infrastructure will play a critical role in supporting central business district growth; but equally it was the way in which it was built, that made it stand out

Judge Michael Carson said that this reduction in impact in a busy central city environment was what made the project "even more impressive".

For more information about the project visit: **www.wellingtonwater.co.nz/work-in-your-area/dixon-street-wastewater-upgrade/**

We caught up with Zac Jordán, Wellington City Council's Principal Advisor Infrastructure Resilience to get his thoughts and highlights on the pump station.

Why is the pump station so important?

Wellington is growing and while infrastructure is not the first thing on people's mind when they are viewing a brand spanking new apartment, flushing the toilet knowing it is flowing away would be top of mind if it didn't!

The pump station provides wastewater services to a growing population, and will relieve pressure on other pump stations around the city, reducing the chance of overflows into the harbour.

What made this project delivery successful?

Making sure we were able to keep the city moving, through innovative traffic management solutions, was critical to the project success.

There were a number of construction projects happening in the area with two adjacent building demolitions and building of three new apartment complexes. Coordination across construction sites and the management of the shared access to Feltex lane were necessary for Brian Perry Civil and G.P Friel to reduce adverse impacts on neighbouring projects and secure efficient use of the road corridor under umbrella traffic management plans.

Road users were kept at the front of mind, with GHD employing Mooven™ to improve 'real time' understanding of traffic movements, taking a simple trace from cell phones and then planning lane closures for those times of day when the demand was genuinely low.

Victoria Street is in great demand at the close of many Wellingtonians' working day. The project team used traffic data to identify when pressure on Victoria Street was greatest so that the timing of the lane opening at the end of the day was optimal for both the project and those heading south.

What was the biggest challenge?

Given the lack of space, the central location and how close the construction site was to buildings, roads, and trees, it was important to create as little disruption as possible for those living, working and commuting nearby. Segmental caisson construction was perfect for this site, as it requires a significantly smaller site footprint than many traditional methods.

customer champions

Handmade with care. Our customer champions are recognised for demonstrating the right behaviours.

Helping our entire organisation to become more customer-focused is the driving force behind our 'customer champions' initiative. These champions are a very special group of people from throughout our organisation who meet regularly to raise the profile of customers within Wellington Water.

What have they been up to?

Over the past twelve months, our customer champions have been busy developing the behaviours underpinning our customer vision:

- *"Putting customers at the heart of everything we do."*

This vision sets the tone for how we want to interact with, and be perceived by, our customers through our interactions with them.

As part of creating this vision, our customer champions developed three key behaviours that brings the customer vision to life:

- *Caring (we work with our customers).*
- *Honest (we'll say what we'll do and we do what we say).*
- *Authentic (we build and maintain genuine relationships).*

Awarding people who put customers at the heart of everything they do!

As a way of highlighting and embedding this customer focus within our organisation, our customer champions have developed awards that recognise staff members who demonstrate these three key behaviours in their everyday work.

The first of these were awarded at our All Staff meeting in June, where each recipient was gifted a hand-made, crocheted figure, representative of each behaviour. Here are the recipients and their nominations.

One of three customer champion awards (authentic), handmade by our very own Edward Yong.

Caring - Jimmy McErlean, Pipelines team

Jimmy didn't get struck by the by 'stander-by syndrome', instead when he saw someone in our community in need he jumped into action and showed what caring for our community looks like. The Pomare Pipeline Team was busy working in Mahoe Street. Suddenly the team was alerted to an elderly gentleman, who was out for his daily stroll, and had fallen down opposite the worksite.

Without skipping a beat, Jim grabbed the first aid kit and headed over to give the gentleman some much needed attention. He administered first aid and provided comfort and support. A true customer champ!

Honest - Linda Fairbrother, Major Projects team and WellBe Chair

Linda brings so much integrity, joy, hard work and compassion to the organisation. Her working style is to go the extra mile, if you are in a bind she'll work with you to sort it out. If she's not the right person she'll let you know straight away and help you find who is. You know she won't let you down because she works with you to set realistic timeframes and expectations. If there's a delay or an issue she's straight up and honest.

As the Chair of our Wellbe committee Linda has not only delivered on a promise she continues to exceed it. Along with the Wellbe committee, she goes above and beyond to look after the wellbeing programme and puts her heart and soul into making sure people are looked after and that everyone has the chance to be included in the various activities throughout the year.

Authentic – Samir Hermiz, Land Development team

Over the years, Samir has assisted our customers in so many ways. This is conveyed in numerous emails that come via the land development inbox or to Samir himself stating "Samir I have contacted you because you have assisted me before."

He is very resourceful and where other team members cannot find the information, ask Samir and in no time the information is on your desk!

Samir has earned the trust of our customers when it comes to helping them resolve their drainage issues. In a meeting held with Wellington City Council the Building Consent team echoed that Samir is an asset to the building consent process for the Drainage item.

Samir is very passionate about land development, his sense of humour and cooperative manner helps to drive the spirit of the Land Development team.

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Ben Matthews has been looking after Wellingtonian's water for more than 35 years.

three decades of looking after Wellingtonian's water

Ben Matthews has been looking after the Wellington community for over 35 years. Here he takes the time to share his story of working in the Wellington Water industry.

How did you get involved in the water sector and what have been your fondest memories?

It all started when one of my mates, who was working for Wellington City Council in the drainage team, let me know there was a vacancy.

As a young man it felt like a good opportunity, so I quickly applied and soon after started work as a labourer. Back then there were about three steps you had to take to become a water serviceperson, and I'm proud to say I moved through those pretty fast.

Once I reached that level (water serviceperson) my career progression sort of halted, as you had the older fella's who were in their job for life (and fair enough) but it made it a bit trickier to keep moving up the ladder.

How has the sector changed?

That didn't mean things didn't change though. Through my career I've seen the water services go from being run by the council, then the Greater Regional Council took over, then the subcontracting started and we worked within a whole heap of organisations. The first was a UK family run business, then an Australian based, German owned business, called Bilfinger Berger (we had fun with that name), then CityCare, and now here I am in an alliance with Fulton Hogan and Wellington Water!

During this time I've seen the tools of the trade evolve, vehicles become far more streamlined, and we've worked under a few different mayors. I've got to work with my son, Cameron, who's now been in the water industry for 14 years. Being in the same team brings with it all the fun and challenges of any good father and son dynamic.

What's the best part of your job?

For me the best part of this job is the people, there's so many people out in the field that I've worked with, trained up and mentored. We've always said this is a good job and good work but it is demanding. It's a physical job and you've either got it or you haven't, that's what we tell the youngsters when they start off. Most of them are probably more skilled than I am now, which is great to see, it shows you've taught them well.

I've been off the tools for the past five years, and now getting back into it. It turns out I can still teach the young folk a thing or two! Although I've been in the industry for 35 years I'm still keen to keep learning and looking for the next challenge. It's been a great change moving over to Wellington Water, you can see and feel the difference – we're all excited to make this work!

As I think back over the last 35 years, I feel extremely grateful and humbled to have ended up in this job, with such great people. This is an industry where people support each other, and I've had so many great friendships. Some of my favourite memories include playing in the local rugby league with my work mates, catching up for a drink and a story. So yeah for me, it's all about the people and relationships you build, that's been awesome.

Thanks Ben for sharing your story with us! Ben's also recently received some great feedback from one of our customers who called to thank the team for getting a leak fixed. She wished to especially thank Ben Matthews, as he "was really nice, polite, and gave great service.

the six principles

Recent activity through the six principles lens of drinking water management.

Principle 1
A high standard of care must be embraced

In August we hosted a pōhiri (or pōwhiri) to welcome our new alliance partners, contractor panel, and consultancy panel to our Wellington Water whānau. At the pōhiri we promoted the importance of our three customer outcomes and continuing to promote the need for a high standard of care to be embraced across the wider water whānau in all our activities particularly when it comes to delivering safe drinking water to our customers.

The pōhiri was an opportunity to discuss how all of our partners can work together to deliver on our customer outcomes and promote a high standard of care.

Principle 2
Protection of source water is of paramount importance

We are becoming increasingly aware of the need to work collaboratively with our client councils to minimise the impact of land development works on source waters for the region's drinking water supply, including use of groundwater by others that could potentially impact on the water we source from the Waiwhetu aquifer.

Managing microbiological contamination and contaminants of emerging concern are key considerations for protection of our source waters, and we have been working with GWRC to develop appropriate Groundwater Protection Zones as part of the Proposed Natural Resources Plan for the Wellington Region.

A regional joint working group is meeting regularly to provide a general vehicle for interchange between agencies across the region, to facilitate information and knowledge sharing, build relationships, and make recommendations in relation to maintaining safe drinking water.

Principle 3
Maintain multiple barriers against contamination

A water quality result received from the Naenae reservoir in April 2019 highlights the need to maintain multiple barriers to contamination. Routine water quality testing results indicated the presence of E.coli, an indicator of possible contamination.

Standard procedure in such cases is to either isolate the reservoir or increase the level of chlorination at the reservoir, and carry out further testing of the affected area of the network. Chlorine provides an additional barrier against low levels of contamination and is an important tool in providing safe and healthy water as part of a multi-barrier approach.

Following completion of an investigation report, a sanitary inspection of the Naenae reservoir will be completed to identify if there are any issues that need addressing.

Chlorine provides an additional barrier against low levels of contamination. It's an important tool in delivering safe and healthy water.

Principle 4
Change precedes contamination

We have been working closely with our new alliance partner Fulton Hogan to promote a high standard of care throughout the change in service provider, to ensure drinking water quality risks are appropriately managed during the transition to this new collaborative operational and maintenance model.

Rob Blakemore, Chief Advisor Service Planning has been out and about at all three depots chatting to the teams about managing cross contamination risks, pathogen pathways, and reinforcing the need for being vigilant when changes occur.

Principle 5
Suppliers must own the safety of drinking water

Our Safe Drinking Water Committee is meeting on a regular basis and we are focussed on embedding our recently approved Safe Drinking Water Policy throughout our organisations and Wellington Water whānau.

Principle 6
Apply a preventive risk management approach

Our draft regional water safety plan is currently being reviewed by Regional Public Health (RPH). As part of the review, we are working through various collaborative workshops with RPH to ensure that the document meets all their requirements and appropriately documents the risk management approach we have in place. The workshops are expected to be completed in August to allow the water safety plan to be finalised.

Our Safe Drinking Water Policy is an important step in formalising the level of service we are committed to, so we can continue our goal of providing safe and healthy water.

supporting urban growth

How we're using the National Policy Statement on Urban Development Capacity to plan for growth.

Over the next ten years the population in the metropolitan Wellington Region will grow by around 30,000 people. Within 30 years, the population is predicted to increase by around 88,000 people. It's anticipated that 50,000 of these new people will choose to live in Wellington city's central business district.

New Zealand's urban areas are growing quickly

To support productive and well-functioning cities, it is important that regional policy statements and regional and district plans under the Resource Management Act 1991 (RMA) provide adequate opportunities to develop land for business and housing to meet the needs of the community.

Using land for housing and businesses

The 2015 Productivity Commission inquiry into 'Using land for housing' recommended that a national policy statement could help address the constraints on development capacity in the resource management system. The National Policy Statement on Urban Development Capacity 2016 (NPS-UDC) forms part of the Government's response to the Productivity Commission recommendations.

Meeting the demand through development capacity

The NPS-UDC directs local authorities to provide sufficient development capacity in their resource management plans, supported by infrastructure, to meet demand for housing and business space.

Development capacity refers to the amount of development allowed by zoning and regulations in plans which are supported by existing or planned infrastructure. This development can be 'outwards' (on greenfield sites) and/or 'upwards' (by intensifying existing urban environments).

The NPS-UDC requires district and city plans to provide for a growing population. This means zoning rules need to anticipate and enable the supply of housing to meet demand.

The NPS-UDC is clear that this zoned capacity must be supported by infrastructure. This means Wellington Water must work with our clients councils to provide this growing population with drinking water, wastewater and stormwater services that are fit for purpose.

Assessing our three water networks

To meet the reporting requirements of the NPS-UDC, we recently assessed our three water (drinking water, stormwater, and wastewater) networks in light of projected population growth.

The NPS-UDC has resulted in a closer integration between our teams and the urban planning departments at each council to identify where growth will require future upgrades to infrastructure.

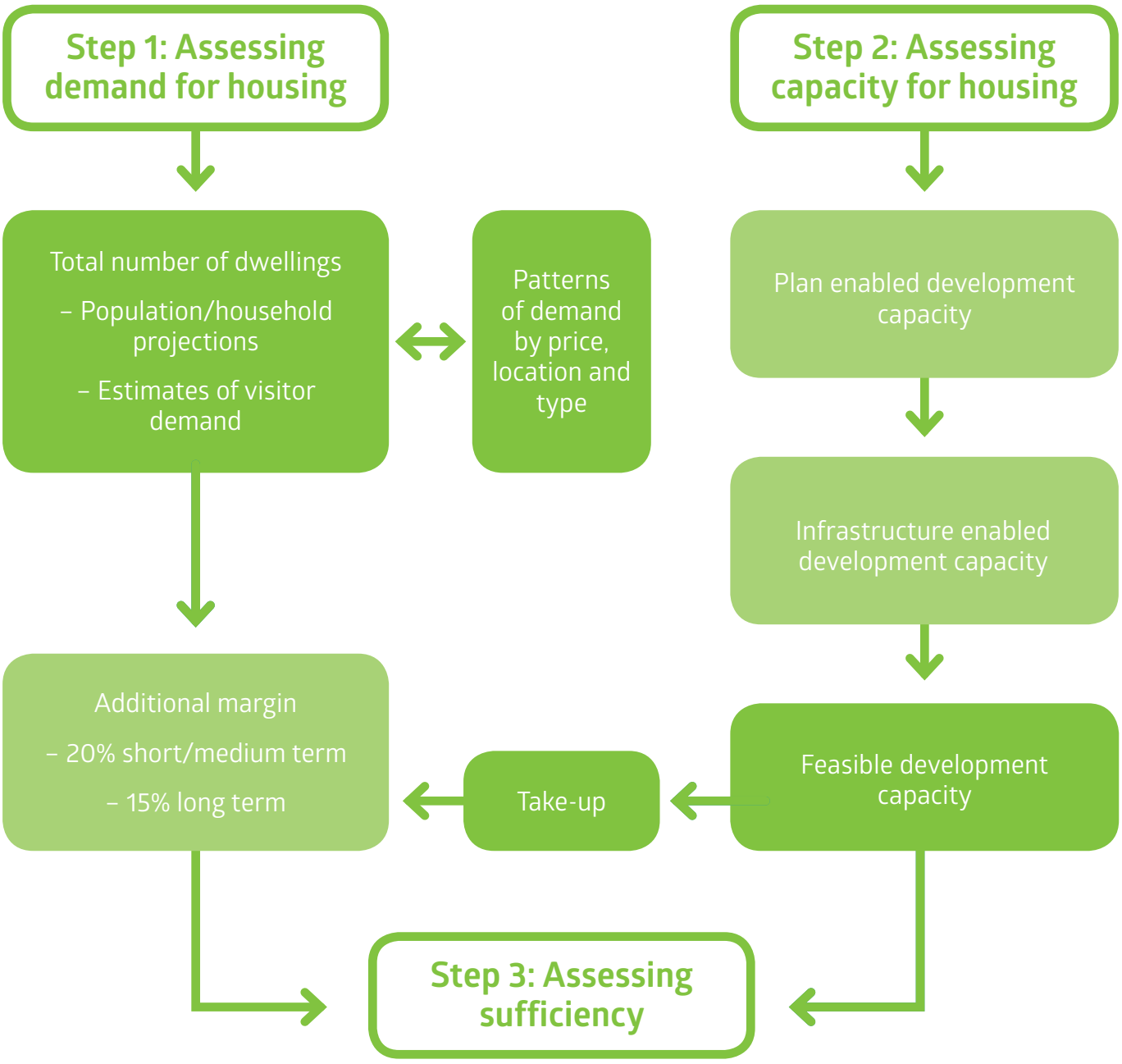


Figure 1: The NPS-UDC Guide on Evidence and Monitoring (2017) Housing assessment methodology overview flowchart, indicates how the evidence on infrastructure is used to assess feasible development capacity. Our role is shown under Step 2: Infrastructure enabled development capacity.

2019-22

Statement of Intent measure **update**

We will make sure future growth is supported by having well thought-out network delivery plans **(SOI measure 17).**

UPDATE: Draft capacity assessments reports have been submitted (31 December 2018) as agreed with client councils. We've identified twenty areas where we know there will be significant growth and land development. Over the coming two years we'll be developing three waters service plans to support these areas of growth.

improving Pinehaven Stream to reduce flooding

The Pinehaven Stream has a long history of flooding events, typically occurring every year or two years. While some upgrades to the stream were completed after the 1976 storm event, residential dwellings remain at risk of internal flooding unless further improvements are made.

The Pinehaven Stream Improvements project implements the Pinehaven Stream Floodplain Management Plan. The joint project between Greater Wellington Regional Council and Upper Hutt City Council involves a range of structural and non-structural measures designed to reduce the flood risk to the community and the catchment.

The overall vision of the plan is: 'A prosperous, and safe community that proactively manages the risk of flooding in the Pinehaven catchment'.

This project is challenging to construct due to constraints on site. However, Wellington Water selected a contractor early to assist with property consultation and enable the design process to scope and develop construction methods. This will assist project delivery timing and minimise construction costs.

Project Director Tristan Reynard says "this major project is well suited to early contractor involvement. We're working with 48 directly affected property owners. By engaging nice and early we can incorporate the views of owners in our detailed design.

"We expect the physical works to begin in early 2020, after the consenting process is completed." ■

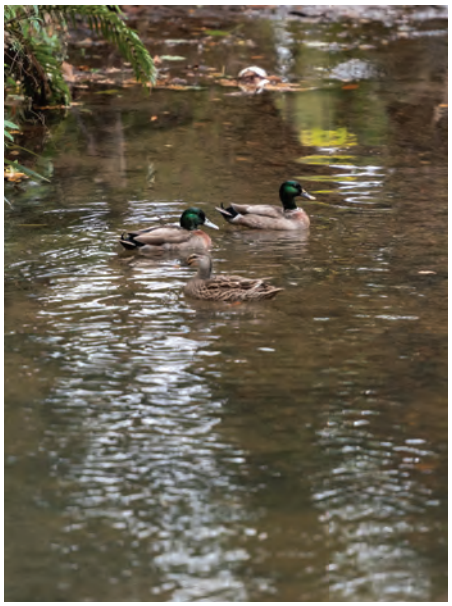
The culvert at the road crossing of Pinehaven Road and Blue Mountains Road will be upgraded too.

Sunbrae Drive Culvert will be twice the size it is now.

This older bridge at Willow Park will be replaced with a new bridge connecting with land purchased for the project at 4 Sunbrae Drive.

Gen Drake – Community engagement specialist.

48 Blue Mountains Road – another project property. The house is built directly over the Pinehaven Stream.



Pinehaven Stream residents.

regional standard consolidates construction code across cities

The latest versions of our Regional Standard for Water Services and our Regional Specification for Water Services have now been published.

The Regional Standard for Water Services ("the Standard") was developed to consolidate the codes of practice for water services for our client councils (Porirua City, Hutt City, Upper Hutt City and Wellington City) in order to provide a regionally consistent method of design and implementation of three waters services across the Wellington region.

It provides performance and engineering requirements, including the networks' mandated level of service, stating how components of infrastructure are expected to function, and description of acceptable engineering methods to comply with the stated performance levels.

The Standard is to be read in conjuction with the Regional Specification for Water Services ("the Specification").

This Specification provides the three waters technical and construction requirements for our client councils, including consistent methods and technical guidance for materials, design, and construction.

The provisions within these two documents apply to proposed infrastructure in new subdivisions, and to the maintenance, renewal, and upgrades of existing council infrastructure.

The intention behind the development of the Standard, first published in 2012, was to promote consistency in the local industry for the benefit of developers, designers, suppliers and councils. This first version still had many council-centric clauses.

In our newly-released second versions of the Standard and the Specification, published May 2019, we have removed as many council-centric clauses as possible, which is much less confusing for those designing, supplying, constructing and maintaining three waters networks in the boundaries of our client councils, and allows for economies of scale (e.g. as suppliers are able to stock for the region, rather than smaller amounts of different products for each council, cost savings can be made). While the current Standard and Specification still have some clauses particular to each city remaining, the intention is that these differences will reduce over time as philosophies consolidate with more collaboration. The revisions also eliminated obvious errors, incorporated changes and additions to current accepted methods, and removed overlaps and contradictions between the two documents.

Many of the changes that were made to form the new versions of the Standard and the Specification were as a result of feedback that we received after consultation with our client councils, consultants, contractors, and suppliers. We asked them for their suggested improvements to both the original versions and the draft revisions of the Standard and the Specification, and we had an enthusiastic response. Their input greatly improved the final result, and is also going to inform a number of improvement projects that will form the basis of the future revisions.

The latest versions of our Regional Standard for Water Services and our Regional Specification for Water Services are available on Wellington Water's website at **www.wellingtonwater.co.nz/contractors/technical-information/regional-standard-and-specification/**.

Any enquiries or comments on the documents can be sent to **standards@wellingtonwater.co.nz**

panel van

Being at the forefront of change can be scary. Some members of Wellington Water's new contractor panel share reflections on the journey so far.

The story so far – creating a new partnership for delivery

As a shared service, council-owned organisation, owned by multiple councils, one of Wellington Water's key opportunities to seek and deliver value for its shareholders and their ratepayers is through smarter purchasing decisions. A shared services approach creates a larger buyer, similar to what could be achieved by a full merger but with a pure focus on that particular service

There are five elements to Wellington Water's service delivery strategy. We looked at how we deliver services for bulk drinking water supply and treatment, wastewater treatment, project design and delivery, physical works, and customer response and service.

On 1 July, the new model for physical works delivery came into effect. We call this our Contractor Panel. It comprises three teams of contractors who carry out the physical work of our clients' capital expenditure programmes; the planned work to renew, upgrade and build new capital assets such as pipes, reservoirs and pump stations.

This work is worth anywhere between $70 million and $100 million or more a year in total. Over 10 years, that's approaching $1 billion. Our contractor panel is a 10 year agreement to work with the three teams to deliver that work.

In the past, more than a dozen contracting companies regularly carried out work on three waters assets. We decided we'd work with three teams of three.

We wanted the teams to balance capability and capacity, so they could tackle a range of work, big and small, and we wanted to ensure we kept as much of that local experience as possible.

The benefits of this approach to our client council include lower costs caused by system drag. Panel members assured of work don't need to price in a lot of uncertainty from job to job and year to year. They can work with Wellington Water and our other suppliers to provide input on project design, rather than having to start from scratch. For the long term, the increased certainty of work will help them develop their businesses to meet the sector's needs in the future.

Putting the panel together, and working in this new way, was a change and a challenge both for our suppliers, and for Wellington Water. ▶

David Howard, Managing Director Construction Contracts Ltd.

Michelle Hoffmann, Project Manager EN Ramsbottom Contractors.

Duncan Mundell, Wellington Contracting Divisional Manager, Fulton Hogan.

Wellington Water's contractor panel officially launched on 1 July 2019. It comprises three teams of three companies: 1. E. Carson & Sons, Brian Perry Civil, G.P. Friel; 2. Construction Contracts Limited (CCL), E.N. Ramsbottom, Juno Civil; and 3. Fulton Hogan, Wellington Pipelines, HydroTech.

Openness means hard work

"Openness and honesty are the two biggest things" to bring to a panel process says David Howard, managing director of Construction Contracts Ltd (CCL).

This takes work. "One of the surprises was just how much it work it involved for me personally," says David. “Having meetings with partners, with Wellington Water, with consultants, having meetings about meetings to keep everyone informed. The guys on the ground generally aren’t interested in the politics of it all, they just want to work, but you have to be prepared to be open, to share a few wounds and scars."

Both the other panel members backed this up.

"Building trust takes time," says Michelle Hoffmann, of E.N Ramsbottom. "Initially there was a lot of mistrust. Some thought that Wellington Water had a fixed outcome already, and we were all just going through the motions.

"Eventually we realised that the co-design process was real. This was a big change, as previously we'd been used to our place in a hierarchy. It took a while to get our heads around that."

Duncan Mundell, of Fulton Hogan, noted that the panel model was not a lot different from how Fulton Hogan works with other clients. Openness is a two-way street in these situations. "Wellington Water is creating this as they go," he said, and with the model being new to everyone, self-awareness about the internal challenges of the journey is important.

"It did seem sometimes as if Wellington Water were asking for input, but whether they were listening or not was a different matter.

"This was possibly a symptom of where there were at the time. There was a lot of change going on, with the consultancy panel, The Alliance, and the contractor panel."

Working with uncertainty

Being open particularly in times of change builds trust. "Every now and then we'd get a glimpse of what Wellington Water’s vision for the panel was, which gave us a greater understanding of what they were trying to achieve," says Michelle. “Maybe if Wellington Water had been more transparent about their vision, there wouldn’t have been such an initial resistance to change.”

"This is an untried model, says Duncan. "There is lots of new learning, and challenges from the process of increased communication. (Wellington Water) could have been a little more open about how little they knew.

"You need to be realistic about what can be done. We could probably have concentrated on less at the start, and worked on the nice-to-haves later. They will come, but you need to walk first."

Michelle also said being aware of what mattered most to both parties is helpful. For example, "having a forward work programme was important to us, but we didn't feel that it was high up on the priority list for Wellington Water. Perhaps if both parties had outlined their expectations and priorities earlier, some challenges could have been avoided.

"There was a lot of uncertainty. Both partners need to be aware of that. We didn't really know what we were going to be part of due to the co-design aspect of the panel. We were tendering to be part of the panel, without really knowing what we were signing up for."

"I probably didn't really understand the scale of the changes at the beginning," says David. "I'm really proud that we got on the panel, it was a big achievement. But it's part of a system, and the other parts need to work well. You need to have the right people in the right places, too.

Challenges of change

"It was a very daunting thing to be facing," Michelle says of the panel formation. "In Wellington, most of the contractors are family owned. If we hadn't been successful with our bid, we would have had to reinvent ourselves or face closing the door on a business that had been operating for 52 years.

"Putting the tender together, not only was it a lot of work - and money - but we were forming teams with people who we were competitors with. Now we were working together. That took a bit of getting used to."

In change, constants become increasingly valuable. "Everyone is learning along the way. Having clear ownership of the process internally, a clear driver for the work, could have been better," Duncan says.

"It was important to have a constant face throughout the process," Michelle said, paying tribute to the contribution of Wellington Water's procurement specialist, Aimee Digges La Touche.

The way ahead

There have been challenges along the way, but we’re in a way better place," says David. "For example, one of the contractors was struggling recently for some engineering resource. Wellington Water lent them someone to help them out.” Under the old model, “that type of support was just unheard of." David's one reservation is about the possible barrier to entry for new players that a panel can create.

"Initially I resisted the change," says Michelle, “but now I see its potential. I would now have no hesitation to ring a fellow contractor or consultant to ask for advice – prior to the panel that would rarely have happened."

"It's a different way of working," says Duncan. "The early signs are good, there are good people, and we're developing good relationships with Wellington Water, with the other teams and the consultants."

"We're excited, we can see the benefits. It’s a long haul; the next step is, can we deliver on the work?" ■

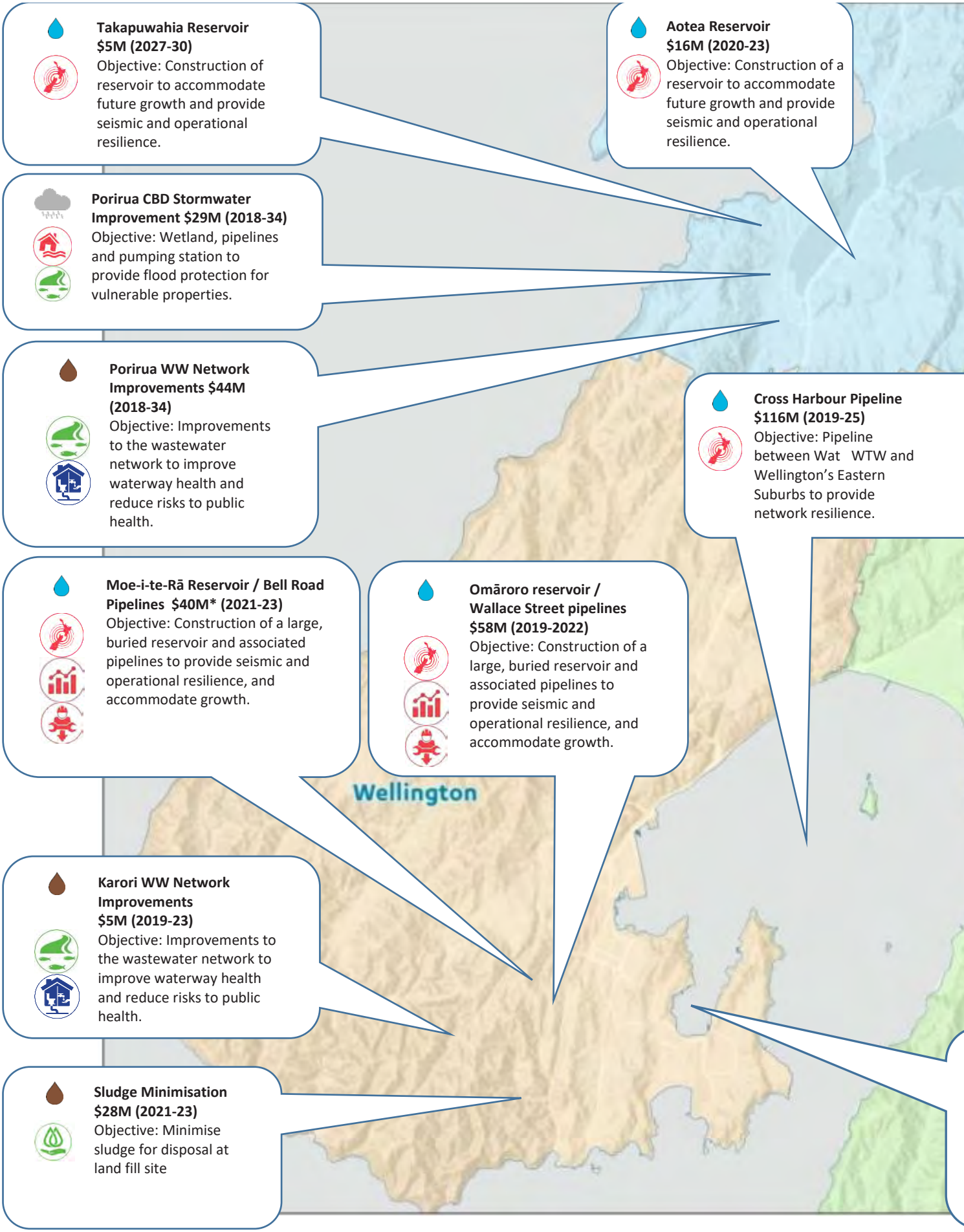
our water, our future

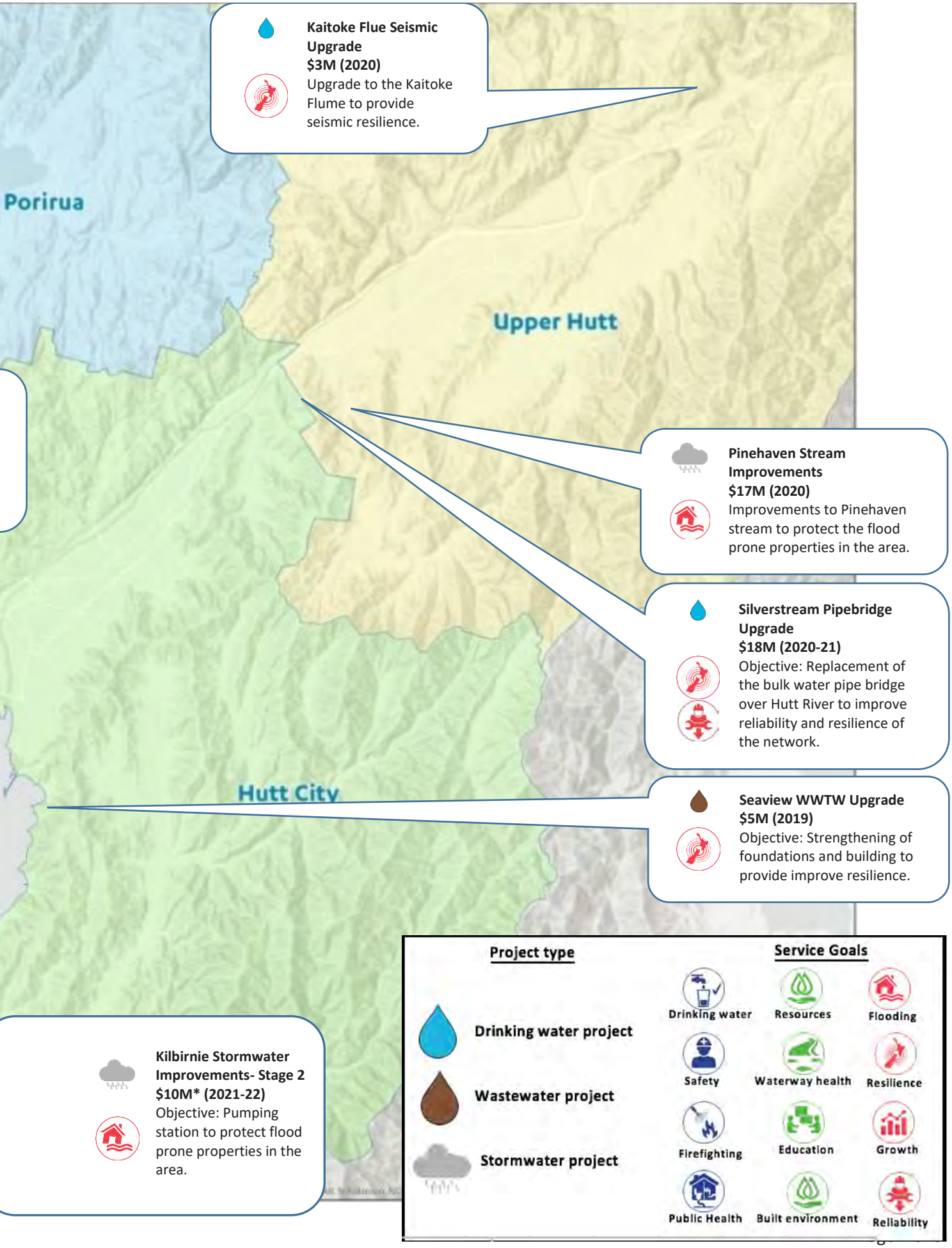
Some of the big projects we're working on around the region.

Major capital expenditure (capex) projects includes works which have a high monetary value, are required urgently, have significant technical or managerial complexity, or have greater levels of risk.

Our current capex programme includes:

- Silverstream pipe bridge replacement (Greater Wellington Regional Council) - the concept design for the replacement pipeline beneath State Highway two (SH2) and over Silverstream bridge is nearing completion with a recommendation to construct a new pipe bridge across the Hutt River/Te Awa Kairangi to keep the pipeline above the flood levels and the Wellington fault line.
- Cross-harbour pipeline (Greater Wellington Regional Council) – site investigations are being undertaken to provide information to inform the pipeline route selection as part of the concept design development. The investigations include hydrographic surveys and bores to confirm ground conditions.
- Kaitoke flume seismic upgrade (Greater Wellington Regional Council) – a contractor has been appointed to commence value engineering work to reduce risks associated with possible interruptions to water supply.
- Seaview Wastewater Treatment Plant seismic strengthening (Hutt City Council) – works to seismically strengthen the treatment works with ground improvements and make structural improvements to the buildings. Construction of ground improvements will be complete in August.
- Porirua central business district stormwater improvements (Porirua City Council) – land swap (Crown to Crown) is required for the wetland. Procurement through the contractor panel will commence in September.
- Aotea and Takapuwahia reservoirs (Porirua City Council) – consent for Aotea reservoir has been approved, however conditions are being reviewed. Project will re-commence in July 2021 when funds are available. Takapuwahia reservoir on hold until July 2020 when funds are available.
- Porirua wastewater network improvements (Porirua City Council) - a network improvement plan is being developed to inform wastewater treatment plant consent and network improvements. The cost estimate of proposed works have increased.
- Pinehaven stream stormwater improvements (Upper Hutt City Council) – engagement with affected residents has commenced. Consents are being applied for in September. Detailed design on track for completion in December.
- Omaroro reservoir and Wallace Street pipe lines (Wellington City Council) – physical works of the pipelines to and from the proposed reservoir have commenced with service diversions in Hargreaves Street. Further traffic management submissions have been sent. Reservoir design is complete. There has been a change of procurement methodology to maximise opportunities from Early Contractor Involvement.
- Kilbirnie stormwater improvements (Wellington City Council) – project is currently on hold at Wellington City Council's request while preferred options are being re-visited.
- Sludge minimisation (Wellington City Council) – project to commence with concept design in September 2019 once objectives have been agreed with Wellington City Council.
- Karori wastewater network improvements (Wellington City Council) – projects to reduce inflow and infiltration are underway. We've had great engagement and support from the Kilbirnie Residents Association.
- Moe-i-te-Ra reservoir and Bell Road pipelines (Wellington City Council) – a brief has now been agreed to undertake the project review work. ▶


Takapuwahia Reservoir
$5M (2027-30)
Objective: Construction of reservoir to accommodate future growth and provide seismic and operational resilience.
Aotea Reservoir
$16M (2020-23)
Objective: Construction of a reservoir to accommodate future growth and provide seismic and operational resilience.
Porirua CBD Stormwater Improvement $29M (2018-34)
Objective: Wetland, pipelines and pumping station to provide flood protection for vulnerable properties.
Porirua WW Network Improvements $44M (2018-34)
Objective: Improvements to the wastewater network to improve waterway health and reduce risks to public health.
Cross Harbour Pipeline
$116M (2019-25)
Objective: Pipeline between Wat WTW and Wellington's Eastern Suburbs to provide network resilience.
Moe-i-te-Rā Reservoir / Bell Road Pipelines $40M* (2021-23)
Objective: Construction of a large, buried reservoir and associated pipelines to provide seismic and operational resilience, and accommodate growth.
Omāroro reservoir / Wallace Street pipelines
$58M (2019-2022)
Objective: Construction of a large, buried reservoir and associated pipelines to provide seismic and operational resilience, and accommodate growth.
Wellington
Karori WW Network Improvements
$5M (2019-23)
Objective: Improvements to the wastewater network to improve waterway health and reduce risks to public health.
Sludge Minimisation
$28M (2021-23)
Objective: Minimise sludge for disposal at land fill site


Kaitoke Flue Seismic Upgrade
$3M (2020)
Upgrade to the Kaitoke Flume to provide seismic resilience.
Porirua
Upper Hutt
Pinehaven Stream Improvements
$17M (2020)
Improvements to Pinehaven stream to protect the flood prone properties in the area.
Silverstream Pipebridge Upgrade
$18M (2020-21)
Objective: Replacement of the bulk water pipe bridge over Hutt River to improve reliability and resilience of the network.
Hutt City
Seaview WWTW Upgrade
$5M (2019)
Objective: Strengthening of foundations and building to provide improve resilience.
Kilbirnie Stormwater Improvements- Stage 2
$10M* (2021-22)
Objective: Pumping station to protect flood prone properties in the area.
Project type
Drinking water project
Wastewater project
Stormwater project
Service Goals
Drinking water
Resources
Flooding
Safety
Waterway health
Resilience
Firefighting
Education
Growth
Public Health
Built environment
Reliability

service goals

We deliver our services by focussing on three customer outcomes: safe and healthy water, respect for the environment, and resilient networks that support the economy.

Our performance in these areas is reported through 12 service goals (four for each outcome).

Customer Outcome 1: **Safe and healthy water**

We face a changing regulatory environment, expected changes in existing drinking water legislation have been incorporated in the new Regional Water Safety Plan. Future challenges with maintaining water quality within the source catchments, treatment plants and network are reflected in this plan. Safe and healthy water is also affected by wastewater and stormwater entering land and waterways – particularly from dry weather overflows and overflows during heavy rain events. This is likely to get worse, with aging infrastructure, urban growth and more extreme weather events. Until we have reduced these overflow occurrences we continue to rate this outcome as amber.

On Track Some concern Off track

			YTD Status	Quarterly Status Q1	Q2	Q3	Q4
Safe and Healthy Water	We provide safe and healthy drinking water	Stay the same					
	We operate and manage assets that are safe for our suppliers, people and customers	Stay the same					
	We provide an appropriate region-wide fire-fighting water supply to maintain public safety	Stay the same					
	We minimise public health risks associated with wastewater and stormwater	Stay the same					

We provide safe and healthy drinking water

We are compliant with the Drinking Water Standards for New Zealand. The Regional Water Safety Plan (WSP) that prioritises improvements to mitigate drinking water quality risks is currently with the regulator for approval. Regional Public Health in light of pending legislation changes are reviewing our WSP with more rigour and scrutiny than previous. We are still proactively implementing improvements identified in this plan. All drinking water quality issues continue to have overview by the Safe Drinking Water Committee and a policy setting out the objectives for Wellington Water and our suppliers is complete.

We operate and manage assets that are safe for our suppliers, people and customers

Recent issues with surcharging manholes during high intensity rainfall events are causing hazards for our community have resulted in a programme of installing hinged lids to manholes prone to surcharging. We are initiated a programme of improvements to progressively reduce fall from height risks from reservoirs. In partnership with the Alliance, future work will focus on developing a sound understanding the health and safety risks from the all assets that we manage.

We provide an appropriate region-wide firefighting water supply to maintain public safety

The hydrant performance testing work programme is on track across the region. Where non-compliant hydrants are found they are prioritised for repair/replacement as required. FENZ operating under its new legislation are keen to have regular dialogue with Wellington Water in order to improve firefighting services.

We minimise public health risks associated with wastewater and stormwater

There are network capacity and condition issues that cause wastewater overflows and result in contamination of urban stormwater catchments both of these can result in public health concerns. Work is ongoing throughout the region to minimise the number of wet weather overflows. Eliminating dry-weather overflows continues to be a challenge especially as it is compounded from pressures on the infrastructure due to growth.

Customer Outcome 2: **Respect for the environment**

Freshwater quality in the Wellington metropolitan region is variable. Some of our larger rivers flowing out of forested catchments are in excellent health. In contrast, some of our streams, rivers and coastal areas are degraded. In some places, urbanisation is contributing to the degradation of water quality through increased stormwater volumes flowing directly into water bodies. Our wastewater network can also result in increased pollution in waterways from leaks in aging pipes and overflows during heavy rain events. To improve these outcomes we will need to identify a range of solutions of which new infrastructure is only part of. This is supported by the publication of the Te Awarua-o-Porirua Whaitua Improvement Plan and the Receiving Environment Water Quality Strategic Case. The impact of some of these initiatives will be tested in pilot studies to assess effectiveness. Due to the long term nature of this goal we continue to rate this outcome amber.

On Track Some concern Off track

			YTD Status	Quarterly Status Q1	Q2	Q3	Q4
Respectful of the environment	We manage the use of resources in a sustainable way	Improve					
	We will enhance the health of our waterways and the ocean	Improve					
	We influence people's behaviour so they are respectful of the environment	Improve					
	We ensure the impact of water services is for the good of the natural and built environment*	Improve					

We manage the use of resources in a sustainable way

Increasing trend in per capita demand for water is slowing signs of stabilising (but not reducing). If the overall trend continues to increase the regional limit of 374 l/p/d could be exceeded within the next few years. If this occurs we will need to consider accelerating supply/demand initiatives to achieve a sustainable water supply. Councils have given us direction to pursue a "conserve" approach rather than "construct". We have commenced work on identified alternative demand management initiatives as an outcome of the Future Services Study, some of these options will be trialled through pilot programmes in 2019/20 and 2020/21 and consider international best practice and learnings.

We will enhance the health of our waterways and the ocean

We monitor freshwater sites and beaches, and some of these sites exceed current pollution target levels. Community expectations are also rising and central government policy has been updated to reflect this. The age of our infrastructure and growth expectations are also putting pressure on the performance of our networks. There is a long-term ongoing initiative to identify and remove sources of pollution. Wellington Water is mapping a pathway for the enhancement of our networks to achieve the new standards.

We influence people's behaviour so they are respectful of the environment

Our customer survey showed that while our campaigns raise awareness about the need to look after our water, we didn't give them enough information about what to do. We're adapting our next summer water conservation campaign to provide more tips for people on how to cut back their water use, and have developed material with clearer 'what to do' messaging around fats and oils, menstrual products and wet-wipes. We're also developing a new school education resource that promotes respectful behaviour with water.

We ensure the impact of water services is for the good of the natural and built environment

The Whaitua Implementation Plan has been issued for the Te Awarua-o-Porirua and there are outcomes included that will drive our future levels of service once these are incorporated into the Natural Resources Plan. The Wellington / Hutt Valley Whaitua committee has been formed, there are important learnings for Wellington Water from the Porirua Whaitua that can be used. We continue to monitor, and participate where appropriate, in national water policy and work streams such as the National Planning Standards – Network Utilities, and MfE Essential Freshwater. We are also working on the application for the consenting of the Porirua Wastewater Treatment Plant discharge.

Customer Outcome 3:
Resilient networks that support the economy

The overall reliability of our three waters service will be compromised during significant natural events as well as every day network performance issues such as water main failures and wastewater blockages. We want our networks to be adaptive to daily operational need and meet the needs of growing cities. We are both investigating and investing to improve our performance; however, a green rating is a long-term aspirational goal. Understanding the limitations of our networks so that improvements can be made is vital to supporting growth in the region and minimising the impacts of events such as flooding. Due to the extent of the regional issues and our progress towards them, we currently rate this outcome red.

On Track Some concern Off track

Resilient networks support our economy*			YTD Status	Quarterly Status Q1	Q2	Q3	Q4
We minimise the impact of flooding on people's lives and proactively plan for the impacts of climate change	Improve						
We provide three water networks that are resilient to shocks and stresses	Improve						
We plan to meet future growth and manage demand*	Improve						
We provide reliable services to customers	Stay the same						

We minimise the impact of flooding on people's lives and proactively plan for the impacts of climate change

Completion of our hydraulic models by 2021 will allow us to better understand the likely impact of flooding on communities and better prioritise improvement. There are known flood risk areas that will need improved flood mitigations. Programmes are being developed and prioritised to understand the scale and urgency of an appropriate response. Recent flooding in specific communities has highlighted the need to continue proactive planning for flood protection and the importance of a multi-pronged solution e.g. building controls, private drain maintenance.

We provide three waters networks that are resilient to shocks and stresses

Our Community Infrastructure Resilience project is complete excluding the desalination option which is being finalised. This project is now at the stage of handover to the council Emergency Operations Centres to develop the plans for the distribution of the water after an event. We are continuing to prioritise work on projects identified in the 80-30-80 strategy including planning for delivery of the Cross Harbour Pipeline in progress and commencement of work on the Omāroro reservoir inlet and outlet pipelines. We are also looking at wastewater and the development of the quake to flush response.

We plan to meet future growth and manage demand

We are continuing a programme of catchment assessments where growth is anticipated to identify and recommend future upgrades to the infrastructure to inform each councils to plan for and fund those works through future Long Term Plans. These will develop a 30 year outlook to enable our infrastructure planning and investment to meet Council's future growth strategies.

Intensive work is needed to identify constraints and associated costs for planning upgrades or new infrastructure to support each council's growth aspirations. A holistic approach to investment needs to be considered, given the constraints to funding for addressing existing network constraints and facilitating additional growth.

We provide reliable services to customers

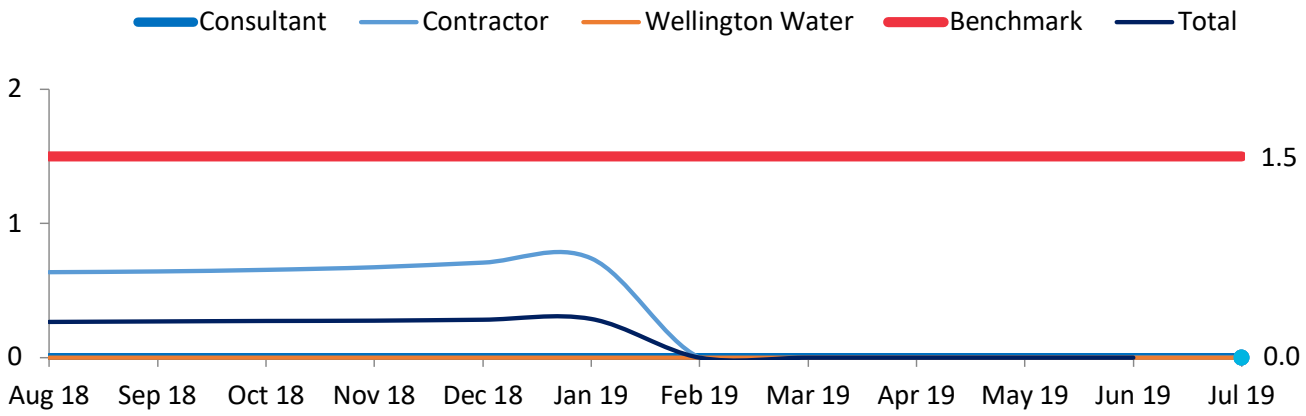
Response to non-urgent repairs has been slowing; there is room for improvement with the implementation of the Alliance. Increased awareness around health and safety requirements has meant that more planning is now being carried out prior to the works on site. Work with Service Planning has highlighted medium term liability around the age of our infrastructure and the timing of funding required to renew water and wastewater pipe assets.

tracking our performance

Health and Safety

Critical Risk - Lost Time Injury (LTI) Frequency Rate

Note: LTI rate is based on rolling 12 months data per 200,000 hours worked. This data only includes Critical Risks.

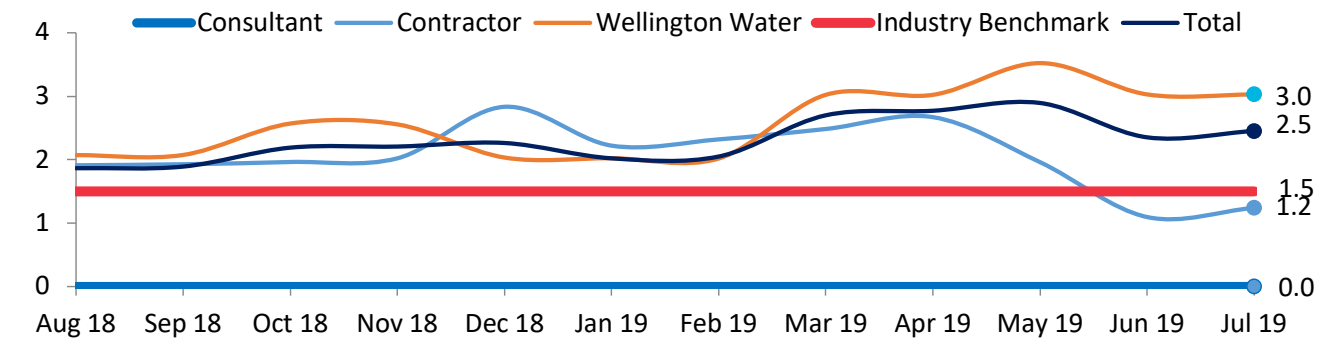


The above graph presents Lost Time Injury (LTI) sustained from any of our nine identified critical risks (risks that are common to our activities and have the potential to serious harm us or cause death).

This graph is a celebration story. We have not had any LTI that relate to critical risks. However, we are continuing to ensure the controls that are in place to prevent workers being harmed by critical risks are regularly reviewed.

Lost Time Injury Frequency Rate

Note: LTI rate is based on rolling 12 months data per 200,000 hours worked.

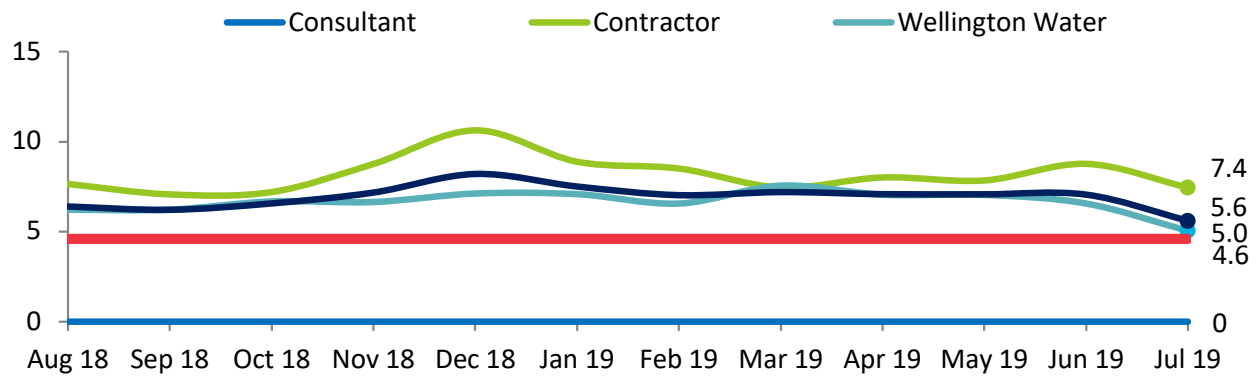


The past four months has seen a spike in the number of Wellington Water lost time injuries due to three lengthy LTIs. Two of these were reported last quarter (jarred wrist and cut thumb requiring surgery), we had one this quarter.

This LTI was not directly caused by work. A serviceperson suffered from severe dermatitis which was potentially could have been aggravated by the work this person carried out, however it could have been a pre-existing condition. 17 days was needed to reduce inflammation and be ready to return to work.

Total Recordable Injury Frequency Rate

Note: Total Recordable Injuries include medical treatment, hospitalisation and fatalities (minor first aid treatment has been excluded). The TRIFR is based on rolling 12 months data per 200,000 hours worked.

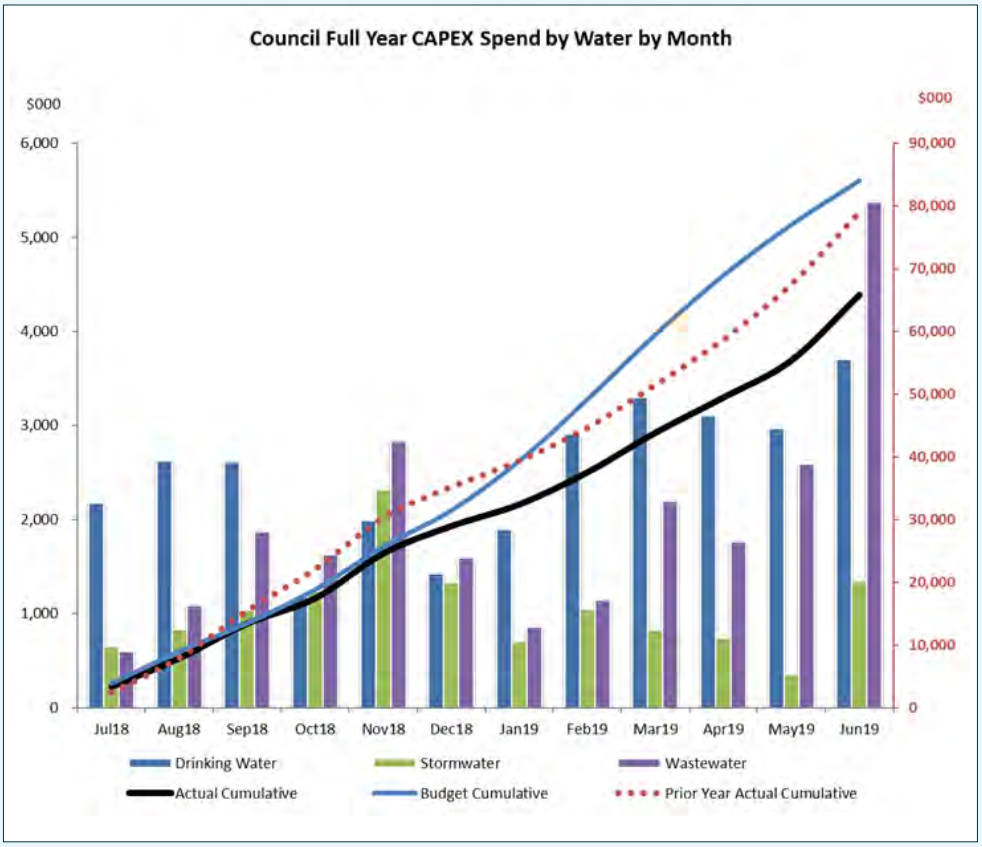


Despite the TRIFR being above the 2018 industry average of 4.6 for the Construction Industry, the number of injuries requiring medical treatment has trended downward from 14 in December to 9 for internal staff and from 15 to 8 for contractors. The average injury requiring medical treatment is 1 per month over the 12 months. There are no main themes of the types of injuries requiring medical treatment as they are split between office staff (sprains) and field crews (cuts and strains).

Capital expenditure (capex)

The Capex Spend By Water, By Month graph shows, on the right-hand scale, how we are tracking at spending what the region has budgeted on renewing and improving the three waters networks. The solid black line is what we've spent or accrued; the black dots are our forecast, and the red dots are what we spent and how last year.

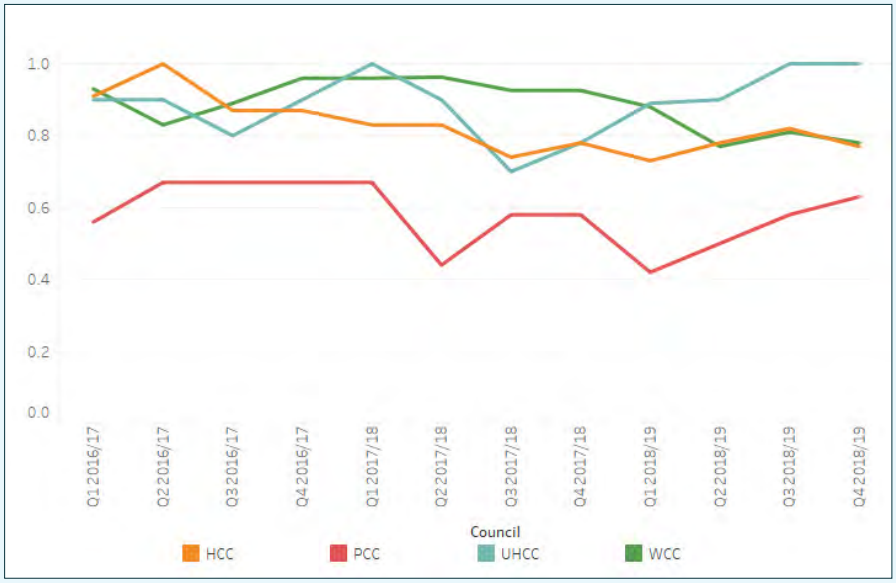
The left-hand scale shows how much we've spent so far on each of the three waters – drinking (blue bar), storm (green bar) and waste (purple bar).



Freshwater quality

Target: 90 per cent of all freshwater sites have a rolling 12 month median < or + 1000 colony forming units (cfu)/100ml.

We currently monitor freshwater sites and beaches. Some of these sites exceed pollution target levels. This is a long-term ongoing initiative to identify and remove sources of pollution. Test results from freshwater monitoring sites have shown a decline in water quality over the last 12 months.



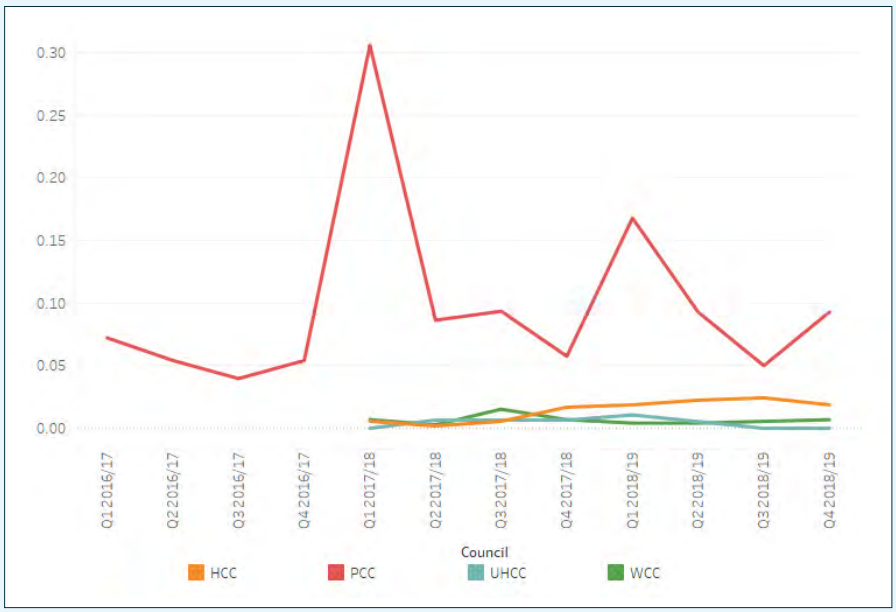
Drinking water usage trends

Increasing trend in per capita for water is slowing, potentially due to a milder summer. If the overall trend continues it's likely the regional limit of 374 litres per person (per day) will be exceeded within the next few years.

Stormwater pipeline blockages

Target: < 0.5 pipeline blockages per kilometre of pipeline.

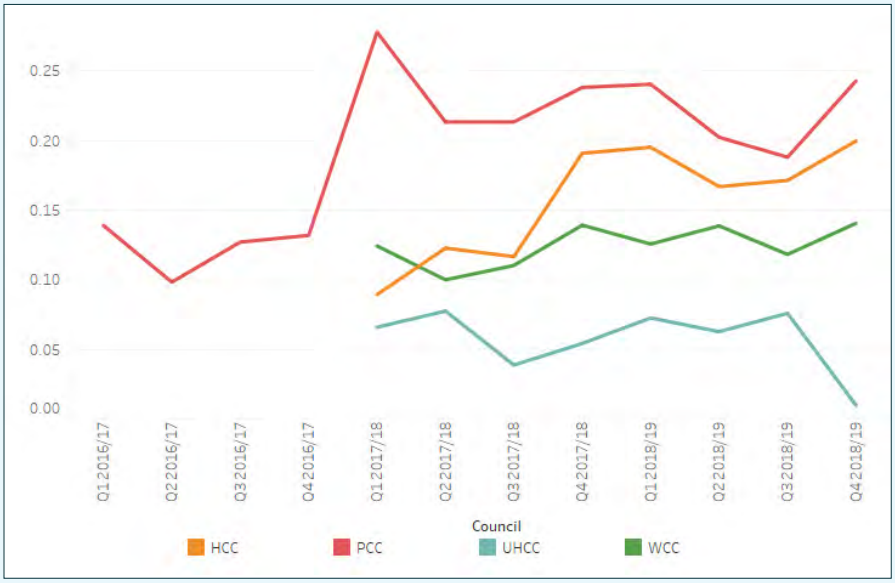
There was a high number of stormwater pipeline blockages in Porirua during the wetter months in July and August 2018, meaning the performance for the first quarter is slightly above the annual target. All blockages were responded to (cleared) within timeframes and did not result in flooding issues for dwellings or businesses. Over the last two quarters the result for this measure has improved.



Wastewater pipeline blockages

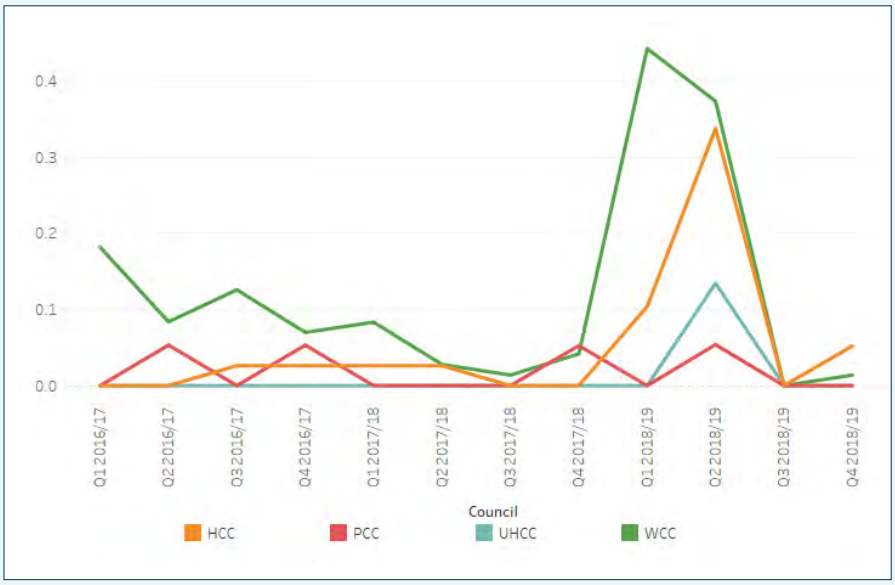
Target: < 0.8 pipeline blockages per kilometre of pipeline.

Blockages continue to be an issue, however we are tracking within our target.



Wastewater overflows (dry weather)

Eliminating dry-weather overflows continues to be a challenge. No dry weather overflows occurred in quarter three, however we will not achieve the target for year-end due to blockages in quarter one and two.



Put fats and oils in the bin and keep the good things flowing.

HUTT CITY TE AWA KAIRANGI

poriruacity

Absolutely Positively Wellington City Council
Me Heke Ki Pōneke

LIFE. LEISURE. LIVE IT!
UPPER HUTT CITY
UPPER HUTT CITY COUNCIL

greater WELLINGTON
REGIONAL COUNCIL
Te Pane Matua Taiao

Wellington Water is owned by the Hutt, Porirua, Upper Hutt and Wellington city councils, and Greater Wellington Regional Council. The councils are all equal shareholders.

Our vision is to create excellence in regional water services so communities prosper. Our customers, the residents of the metropolitan Wellington region, use the services we provide: drinking water; wastewater; and stormwater in their homes, businesses, and communities every day.