

Raveen Jaduram

Building resilience

His connections with Auckland’s water infrastructure date back nearly 30 years, his focus is on ensuring its future resilience – and his perspective on water value is generational.

Watercare CEO Raveen Jaduram talks to **Vicki Jayne**.

He leads an organisation with assets of \$8.7 billion, a staff of 850 and ambitious multi-billion-dollar plans to ensure Auckland’s complex water infrastructure will both meet the city’s rapid growth and be sufficiently resilient to cope with whatever the future may throw at it.

It’s not a task for the faint-hearted but Raveen Jaduram wears the mantle of Watercare CEO with affable ease. He happily admits that he enjoys a challenge. He’s also an extrovert and team player who believes problems are best solved when shared.

“I talk to people a lot because I don’t know everything and people have a lot to offer. I challenge a lot and I like good banter back. I want robust discussion and debate.”

Creating an atmosphere of trust in which people can share, thrive and grow helps eliminate unhelpful information silos and frees people to come up with more creative solutions. And that’s vital when it comes to dealing with the ‘what if’ world of water infrastructure in a rapidly changing world.

“We have to be very agile because we can’t be sure exactly where the growth will happen... and we need to deal with uncertainty. With climate change, for instance, we will get more intense rainfall, sea-level rise, stronger winds. We have to be good at ‘what if’.

“So, we are investing for growth because the city is growing, but we are taking the opportunity to also build more resilience into the infrastructure.”

It’s an approach that has helped inform Watercare’s 10-year, \$4.9 billion plan to lay infrastructure foundations for massive housing growth predicted to the city’s west and north. The CCO (council controlled organisation) is currently seeking approvals for two major new pipelines.

A new wastewater pipe (the \$538 million Northern Interceptor) will divert flow from the Mangere treatment plant to the Rosedale facility. That will utilise spare capacity at Rosedale while freeing Mangere to cope with future growth in the central and southern areas.

A new watermain pipe (the \$264 million North Harbour 2) will help service growth in the north by bringing treated water from the west to the recently completed Albany Reservoir. That will also enable maintenance to be carried

out on the existing (North Harbour 1) pipe initially laid between 1975 and 1985.

Watercare already has approval to install a smaller wastewater pipeline for growth areas in Massey North, Whenuapai, Hobsonville, Kumeu, Huapai and Riverhead and will start construction on it next year. It also has plans to increase water storage capacity at existing sites and boost pumping capacity.

The company’s strategic programmes for 2027 to 2036 will involve a further \$6.1 billion spend which will include new watermains to the north and west as well as additional storage expansion.

Incorporating sustainability into all aspects of the business is high on Raveen’s agenda and plans to future-proof the water infrastructure include making its two major wastewater treatment plants (Rosedale and Mangere) electricity neutral by 2025.

He explains that bio-gas produced from treatment already provides about a third of the power needed and Watercare has entered into a three-year agreement with the Energy Efficiency and Conservation Authority to pool their expertise to meet an interim energy savings target of 8GWh (gigawatt-hours) and 1300 tonnes of carbon dioxide emissions by 2019.

The partnership with EECA typifies his approach that collaboration is king.

“Joining the minds of our highly skilled workforce with the forward thinkers at EECA will enable us to identify the most effective ways to achieve our goal.”

CAREER FLOW

An ability to problem solve and willingness to look outside the square has been a hallmark of Raveen Jaduram’s career – much of which centred on Auckland’s water infrastructure. But, if not for the 1987 Fiji coup, he might never have pursued his engineering career in New Zealand.

“I was born in Fiji and brought up there in an extended family environment. My dad had 11 siblings and most of them had two or three children, so I had a lot of cousins who were of a similar age.”





WATER NEW ZEALAND PROFILE – INFRASTRUCTURE MANAGEMENT

Business was in their blood. In his small hometown, the extended family business holdings included the local pharmacy, hardware, construction, commercial real estate, hotel and cinema.

“My dad ran the cinema and because he and mum had limited education, I got the job of negotiating with film distributors from Australia and New Zealand when I was in third form. They were lovely people; they’d have lunch with us and play chess with me.”

He saw a lot of movies, became a Clint Eastwood fan – and learned a lot about business and people skills.

“My grandfather had a very strong ethic that in our position as employers, we had to look after people in both good and bad times.”

Engineering was a pragmatic career choice. Because there was then no seventh form in Fiji, he went to Suva to do a year in foundation science at the University of the South Pacific.

“While I was there, the government put out a list of scholarships based on what skills they needed and right at the top was civil engineering. They had four positions available and being somewhat competitive, that’s what I went for.”

That scholarship brought him to New Zealand for the first time. He gained his Civil Engineering qualification at Auckland University before returning to Fiji to work on affordable housing projects. Then came the coup.

“I was lucky in that, although they closed all the embassies

after the first coup in May, I already had a visa to come to an earthquake engineering conference in New Zealand.”

He arrived in June, immediately started applying for jobs, was interviewed for a position with Auckland City Council and, by the time the conference was over had been offered a job.

“I had to get a work permit, then get my wife and eight-month-old daughter over – and I haven’t looked back.”

Asked about career highlights, he says spearheading the project to future-proof Auckland’s water supply by accessing water from the Waikato River is a project he is proud of. It was a big move in a career that until then had mainly focused on wastewater.

It was the drought of ’93 that first brought him to the attention of long-time Watercare CEO, the late Mark Ford, Raveen recalls.

Watercare Services had only just come into being as a consequence of local government reform and almost immediately had to deal with a water supply crisis. He’d been put in charge of an emergency scheme which involved utilising water from the Wairoa River – and a couple of years later when Watercare was undergoing a restructure, he got a surprise call from its CEO.

“He said I am offering you the water planning manager job and you have one minute to decide. I think it took me two seconds to say ‘yes’. I hadn’t applied because at that stage my

experience was in waste and stormwater. But basically he was saying I should do something I hadn't done before. He put me in an uncomfortable zone."

It was also an energising challenge. Auckland's water supply clearly needed some future proofing and out of 99 different options on the table, he went with a plan to access Waikato River water. It took four years to get all the necessary consents and went all the way to the Environment Court but, with resilience of supply ensured, it was 'job done' and he moved on.

A shift to the retail side as Operations Manager for Metro Water led on to a general management role with Manukau and his first taste of being CEO when Manukau Water was established as a CCO. Then came another organisational shakeup as the super city came into being.

Raveen became Chief Operating Officer of the new Watercare CCO, but a sense of restlessness saw another career jump – across the Tasman to head Murrumbidgee Irrigation (MI) based in Griffith, New South Wales.

"I think once you are CEO, you don't want not to be CEO. It's not an ego thing but you tend to have strong views about the culture you want to create – and the one I wanted to create was different from what existed."

The fact that his daughter (also an engineer) was working for MI influenced the decision – and he thrived on the new challenges it offered.

"I did SO much in those 15 months. It was fascinating."

WATER SECTOR – THE WAY AHEAD

Funding and expertise are two challenges Watercare CEO Raveen Jaduram cites as facing the water sector over coming years.

On funding:

"We are lucky as we have scale. But many regional towns face dealing with an aging infrastructure from a base of no or limited growth and inability to get the funding needed to meet growing expectations and demands around water supply and wastewater."

On expertise:

"Access to people with the appropriate knowledge ... being able to afford that expertise. That is also a challenge."

He worries the profession is losing some of the wise old heads he learned so much from early in his career and has become more compartmentalised – which often means that individual experts don't necessarily get the whole picture. He notes that to offset that problem, Auckland University is now teaching engineering in teams. "They do problem solving in groups as you do in real life ... yes, that is my style. I think you can really solve problems in teams because you get all the challenging aspects and you learn to respect different views."

IS WATER TOO CHEAP?

What do you think a jug of Auckland water is worth?

While consumers are charged for the infrastructure and not for the water per se, Watercare CEO Raveen Jaduram is clear that, compared to buying water in a bottle, what the infrastructure delivers is a total bargain. For just \$1.44, you get not one, but 1000 litres of top quality water.

"I respect choice but it does bug me when people advertise that tap water smells like a swimming pool or say it is too expensive. The reality is that if you drink the eight cups of water that we are supposed to drink every day from the tap, in Auckland for the whole year, you will pay little more than \$2. That gives you a whole year's worth of water that is AA graded by the Ministry of Health.

"We are so privileged and from an environmental point of view, it is too cheap."

Dealing with issues ranging from drought-induced farmer debt and tight infrastructure upgrade schedules to a raft of regulatory changes required creative solutions, tough negotiations with government representatives – and very long hours. His work became his life and that started to take its toll.

It took a flying visit from Mark Ford to help convince him that Watercare wanted him back and by mid-2013, he returned to Auckland to take up the role of General Manager, Maintenance Services. Less than a year later, he took over as acting CEO when Ford became too unwell to work – and was appointed CEO in late 2014.

While he saw his predecessor as both mentor and friend, Raveen's leadership style is different. Keen to create a culture in which everyone feels engaged and can communicate freely, he ensures that he is both accessible and open. People should be as comfortable about delivering negative news as the positive, he says.

"CEOs are often the last to find out what is really going on. So I open up to everyone and sometimes surprise people, especially customers who ring with a complaint. They are upset and want to talk to the CEO. When they do, they are surprised and start apologising for taking up my time. I say – but you are the most important person for me right now."

While his management style is relaxed, his vision for what the workforce can achieve is aspirational.

"We have created a vision and strategy that we want to be trusted by communities for *exceptional* performance *every* day. So there are some strong words there."

Watercare's stated strategic priorities are to be operationally excellent, financially responsible, customer centric and sustainable. That involves optimising all its many customer transactions, eliminating waste in the system and ensuring the books balance.

"We have to be very good at what we do... We spend a lot of money building new things. Our revenue is about \$520 million and we are talking about spending 70 percent of that on capital works. So we have to be very good at financial management. Finally, we have to be very sustainable – maximising the use of existing assets and working to ensure we have no impact on the



A recent Open Day at Mangere Wastewater Treatment Plant – the largest of its kind in the country – attracted more than 200 visitors. Maintenance controller Tim Burborough shows Parita (left) and Nita Dharmadhikari from Mt Roskill samples of raw wastewater as it enters the plant, and the treated water that leaves the plant 12 hours later.

environment – at either the taking or receiving end."

When it comes to valuing water, Raveen's experience in Australia and with water metering in Auckland is that measurement is vital – both in terms of eliminating waste and quantifying value.

"We are currently trialling some smart meters in Waiuku – the first ones in Auckland. I've been trialling one in my house and I can see the correlation between the toilet being flushed or a 30-minute shower, and spikes in usage. And that allows you to have a conversation – at an individual level – about how water is being used and how best to manage that use. What you don't measure, you can't manage."

Water metering also offers an economic incentive for people to undertake their own water management – such as installing storage tanks to utilise roof run-off for watering the garden, for instance.

"In a number of new developments, houses do have storage tanks – which helps with stormwater run-off as well," he notes.

But water value is not just about today's cost structures – there's an inter-generational dimension to it. And New Zealand is lucky in that it has an existing cultural context and language for measuring that value, says Raveen.

"Maori already have a classification system for pollution levels – Wai Ora is water in its purest form, Wai Mate is dead, stagnant water. For them, the value of water is measured in future generations. So, I don't believe we have an extensive understanding of the value of water – we have different understandings of that value depending on who is talking about it.

"Watercare customers get their water for free – it's the value add, the infrastructure they're paying for. So the question is really about whether there should be a cost for that water and that is a very philosophical and emotional subject.

"But if you put the cost issue aside and just talk about water's value as a resource – most people want our waterways to be clean. They want to swim and fish in the rivers – and they want it to be that way for future generations. So I think the vision, the dream, the aspiration is there for all of us – it's just the means of achieving that which needs to be addressed." **WNZ**