

OUR Auckland

TŌ TĀTOU TĀMAKI MAKĀURAU

WATER, WATER EVERYWHERE,
AND NOW IT'S TIME TO THINK



We capture it, divert it, drink it, wash with it, clean it, re-use it and love to be around it, on it or in it. But as Auckland grows, there is increasing pressure on our water supply - and water quality. So how do we waterproof our future and protect this precious taonga?

FREE DELIVERY
TO ANY AUCKLAND RESIDENCE



If you can dream it, you can do it Walt's words have rung true for me since childhood

One of my most endearing memories of growing up in the 1970s was Sunday evenings; cheese on toast for dinner, a hot bath and pyjamas on nice and early, and family time around our brand new Philips K9 colour television watching *The Wonderful World of Disney*. I loved the Davy Crockett stories and the classic cartoons, but as I got older, I became increasingly transfixed by Walt Disney's creativity, his optimistic visionary view of the future and a fascination for how technology could bring his ideas to fruition. And while Walt himself wasn't necessarily a highly talented artist or businessman, he managed to inspire those around him to help build what became incredible.

Blackwell and Sons is no global entertainment corporation, but it does encompass a vision that blends storytelling, wonderful products, a unique customer experience and technology to bring to life what was simply an idea just a few years ago. Since we re-opened late 2018 in the beautiful Chambers building on Main Street, Greytown, our customers have reflected the story and feeling created back to us, in such a satisfying way. "It smells so good in here, like a workshop." "This is one of the most beautiful shops I've ever seen." "It's not just a store, it really does feel like you sell a dream."

Photo: Shane Kelly, our friendly general manager puts his heart and soul into making sure customers leave with the perfect Pashley bicycle for their needs.



Our new store is located in the historic Chambers building, one of Greytown's most photographed icons.



Pashley bicycles or tricycles and our carefully curated products are beautifully displayed in our workshop-style emporium.



A world first; Pashley bicycles with incredible electric assist, available in store or online and delivered to your door by Shane, personally.



Many of our products, like these rugged totes, are handmade exclusively for us by craftspeople we have met around the world.



We encourage our customers to try our bicycles on the country lanes in and around beautiful Greytown.

These are all real customer comments and we hear them daily. Our brand new emporium sets a benchmark for us, but it is also a work in progress. Walt's view of Disneyland was that it would always grow and change, and my view of *Blackwell and Sons* is the same.

One of our most recent innovations is bringing new technology to our Pashley bicycles in the form of electric-assist. Initially, I was opposed to this idea but one of our more mature customers excitedly told me that riding an electrically assisted bicycle made her "feel like a 12 year old again." If an e-assisted Pashley bicycle could retain its design beauty and functionality, and restore youth, then we had to do it. Our very talented GM, Shane Kelly, worked with the skilled team at Lekkie to create what we describe as dream bicycles. Now, our hand-made British Pashley Britannia, Briton, Princess and Roadster bicycle range can take riders up any hill or into a fierce headwind with electrically assisted ease.

Walt Disney inspired me to pursue my dreams. I have my dream wife, Millie, who re-inspires me every day. I have a dream team looking after the store. And I have a home in Greytown, which is otherwise known as 'Country Village Heaven'. There are always new dreams to go after, but for now, life is a dream come true.

A Blackwell

Adam Blackwell, Proprietor

CYCLING LIFESTYLE MERCHANTS
BLACKWELL
 AND **SONS** Est. 1943

AUTHORISED *Pashley* RESELLERS

110 Main Street
 Greytown, South Wairarapa
www.blackwellandsons.nz

CONTENTS

06
MAYOR'S LETTER

On the water

07
THE BRIEFING

Information and inspiration from Council HQ

08-09
IN YOUR NEIGHBOURHOOD

What's hot and happening in your area

10
ART AND ACTIVISM

How the Pacific Sisters electrified Auckland

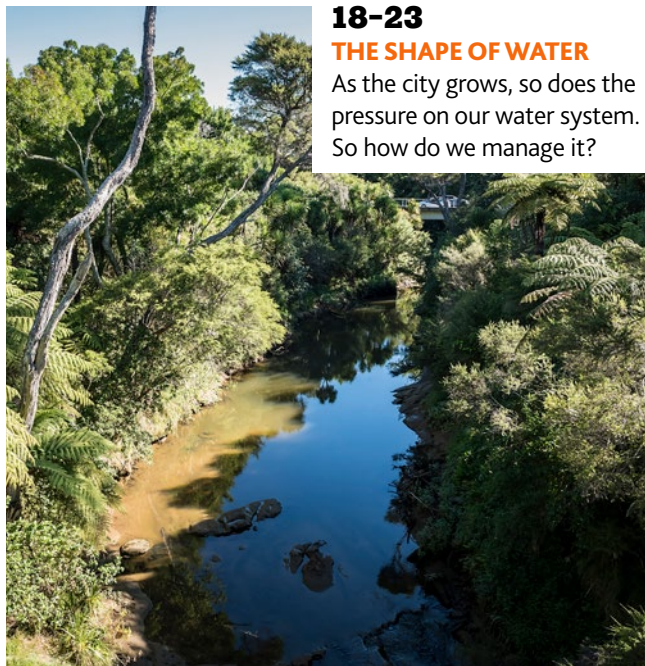


12
FIXED OR FLOATING?

New programmes stop the flow of building waste

14
ALL TALK, ALL ACTION

Community engagement leads to positive change for Manurewa's beaches



18-23
THE SHAPE OF WATER

As the city grows, so does the pressure on our water system. So how do we manage it?

15
VR, ME HEARTIES

New tech lets Aucklanders connect with – and help protect – the Hauraki Gulf

16
ALL ABOARD

A piece of NZ's maritime history gets a new home



24-28
WHAT'S ON

Festivals, shows, sport, free events and more

30
SEE HERE NOW

Great summer shots of the region's best watery spots

CONTACT US

Auckland Council

aucklandcouncil.govt.nz
09 301 0101 (24/7)
aucklandcouncil.govt.nz/contactus
Auckland Council, Private Bag 92300, Auckland 1142
facebook.com/aklcouncil
twitter.com/aklcouncil

About OurAuckland

OurAuckland keeps you up to date with council services, projects and events and helps to fulfil our legislative obligations to keep Aucklanders informed. We conduct regular research to ensure *OurAuckland* is an efficient way of doing this.

Te reo Māori

We're proud to use te reo Māori in *OurAuckland*. If you come across a word you don't know, you can learn what it means at maoridictionary.co.nz

OurAuckland

ourauckland@
aucklandcouncil.govt.nz
ourauckland.nz
Subscribe to *OurAuckland* e-newsletter at ourauckland.nz/enews

Disclaimer

OurAuckland includes paid advertising, in addition to Auckland Council editorial content. While Auckland Council appreciates the support of advertisers in helping to pay for production of *OurAuckland*, the inclusion of any specific advertisement is not an official endorsement or recommendation of that advertiser's products or services by Auckland Council.

Published by Bauer Media in partnership with Auckland Council. For advertising enquiries email advertising@bauermedia.co.nz. Printed by Webstar using sustainably sourced paper.



NEED TO KNOW

Auckland Zoo

This month will be your first chance to see Auckland Zoo's Nepalese red panda cub as first-time mum Khela will start bringing him outside the nesting box. Red pandas are endangered



in the wild and part of an international zoos breeding programme.

Movies in Parks

For the first time, Movies in Parks is trialling open captions for hearing-impaired viewers at *Back to the Future 2* at Coyle Park, Pt Chevalier, Friday 29 March. Pre-movie entertainment from 5.30 pm. Made possible by Albert-Eden Local Board and the Auckland Deaf Society.



f /posterpoem

@0800phantom

www.0800phantom.co.nz



Your campaign deserves a Phantom frame.



Sticking up for our community since since 1982.



BY THE NUMBERS

353,600

The number of people aged 65 and over expected to be living in Auckland by 2033, more than double the number in 2013

\$1.64 billion

or 45 per cent of the council's funding is provided by property rates

5000

tonnes of material have been diverted from landfill since a new inorganic collection booking service was rolled out in 2015

47

years of Round the Bays, New Zealand's largest mass-participation sporting event. More than 26,000 people are expected to take to the 8.4km course on Sunday 3 March



23%

of Auckland residents identified with an Asian ethnicity in the 2013 Census, making our city home to 65 per cent of all Asian people in New Zealand

\$1.1 million

Henderson-Massey Local Board's investment in Henderson North traffic-calming measures to improve safety for schoolchildren

14

volcanoes transferred to the Tupuna Maunga Authority. Maungauika / North Head was the last, in January



On the water

School's back and the new year is well and truly under way. This month, I'll be heading to the Auckland Arts Festival (p24) and Pasifika (p25), two unique cultural events that show our city at its finest. I hope to see you there.

This issue of *OurAuckland* focuses on Te Mauri o Te Wai / The Value of Water. Right now, we are in the process of creating a water strategy for the next 50 years. The issues it needs to address are some of the most pressing facing Auckland.

During the 10-year budget consultation, a water-quality targeted rate was overwhelmingly supported by Aucklanders. It enables an additional \$452 million to clean up our harbours,

beaches and streams over the next decade – 20 years faster than would have otherwise been possible.

There is a lot more work still to do. You can have your say on Auckland's water strategy until 17 March. For everything you need to know to make an informed submission, go to page 18.

Speaking of water, it's that time of year when the weather becomes more unpredictable, so make sure you're prepared for late-summer storms. Visit aucklandemergencymanagement.org.nz and make a plan for you and your family.


Until next time.

Phil Goff, Mayor of Auckland



GET CONNECTED WITH OURAUCKLAND.NZ

Discover more at ourauckland.nz
Get weekly updates on news and events across Auckland at ourauckland.nz/enews
Follow us on social media

 @aklcouncil

THE BRIEFING

INFORMATION AND INSPIRATION FROM AUCKLAND COUNCIL HQ

DROP IT

Auckland Transport is seeking public feedback throughout March on its plans for a new speed-limit bylaw to set safe and appropriate speeds on around 10 per cent of Auckland's local roads. The public are also being asked to share their views on the more than 700km of roads in high-risk areas that AT plans to reduce the speed limits of as part of its programme to prevent deaths and serious injuries.

Sixty-four people died in crashes on the region's roads in 2017, 44 per cent of them speed related. This is a 78 per cent increase since 2014. A further 749 people were seriously injured. AT Chief Executive Shane Ellison says lowering speeds is "one of the quickest and most effective tools to reduce road trauma".

"Our top priority is improving road safety and we want Aucklanders to give us feedback on our draft bylaw, for us to continue our work to make our streets safer for everyone."

AT has identified the areas that pose the greatest safety risk. These include roads with high death and serious-injury rates, as well as those with large numbers of vulnerable road users like pedestrians and people on bikes.

Once public feedback has been analysed, the proposed speed-limit changes are expected to come into effect in August.

To find out which streets are included in the proposed changes and to provide feedback, go to AT.govt.nz/speed.



CHASING RAINBOWS

In a unique blend of science, design, innovation, art and engineering, Auckland's Rainbow Machine is now live for children and families to enjoy at Silo Park until 31 March any time the sun is shining.

Scientists from Callaghan Innovation, architects and

artists Shahriar Asdollah-Zadeh, Patrick Loo and Sarosh Mulla and the team at Ōtāhuhu Engineering helped bring Rainbow Machine to life.

From April, it will move to pop-up locations around the city. This is one of many art programmes, festivals and events across Auckland that build a sense of identity and belonging.

DEMOCRACY IN ACTION

In 2018, as required by law, the council reviewed its current arrangements for the election of Governing Body and local board members in October this year. The council received more than 1200 submissions on its initial proposal and, after careful consideration, made its final proposal.

The ratio of population to members in a ward should not vary by more than 10 per cent from the average across the whole of Auckland. This has led to changes in the boundaries of the Waitemata and Gulf, Ōrākei, Maungakiekie-Tāmaki and Albert-Eden-Roskill wards. The name of the Albert-Eden-Roskill Ward will change to Albert-Eden-Puketāpapa.

There will be changes to the subdivision boundaries in the Rodney Local Board area to better represent communities of interest. The name of the Great Barrier Local Board will change to Aotea Great Barrier Local Board.

The council has received appeals and objections from five people. The Local Government Commission will make the final decision and hear these appeals on 13 March. The hearing is open to the public, starting at 9am on Wednesday 13 March in the Reception Lounge at Auckland Town Hall.

PARKING UP

It's Parks Week in March, so it's a great time to embrace nature and explore some of the 4000 parks across the region, including 27 regional parks, local parks, sports fields and cemeteries. Wander over green hills, take the kids to the playground or enjoy a beautiful beach.

And, for an unforgettable parks experience, check out the council's new Eco Structures. They're an additional accommodation option alongside a range of baches, holiday parks, campgrounds, glamping, lodges, and the backpackers on Waiheke Island. Find out more at aucklandcouncil.govt.nz/holidayplaces.

WASTE NOT

If you've got an innovative idea about how to minimise waste, consider applying for Auckland Council's Waste Minimisation and Innovation Fund (WMIF) this April. Applications open on 1 April and businesses, iwi/Māori and education/community groups can apply for up to \$5000 towards their project. Past funded projects have included community pantry programmes, waste-minimisation workshops, a zero-waste hub, and even a stage play to encourage kids to be waste-wise.

Visit aucklandcouncil.govt.nz/wastefund for more information on the fund, eligibility, and to apply online.

LOCAL NEWS / AROUND AUCKLAND

FUN RECREATION SITES, A BIRD-WATCHING RESERVE, A BOG BECOMES A BEAUTY, AND PRAISE FOR A CRACKDOWN



IN YOUR NEIGHBOURHOOD

PADDLE / DRAGON BOATING (ABOVE)

Always wanted to try dragon boating? Now's your chance. The Auckland Dragon Boat Association is offering free paddling sessions at Westhaven Marina. For more information, visit the association's Facebook page.



VISIT / TAHUNA TOREA NATURE RESERVE

This 25ha reserve on a sandbank extending into the Tāmaki Estuary is rich in Māori history as well as native birds and vegetation. The best time to view wading birds is between full- and half-tide from November to March.



RIDE / GET PUMPED

Test your skills on the temporary pump track located on the corner of Osterley Way and Putney Way in the heart of Manukau. Brought to you by Panuku Development Auckland, the track is free to use, is great for bikes, scooters and skateboards and is onsite until the end of March.



PLAY / VICTOR EAVES PLAYGROUND

Climb, swing, slide and spin – plenty of action for kids at this new playground in Florence Avenue, Ōrewa.

Equipment includes a flying fox, basket swing, spinner, slide and climbing structure. A shade sail keeps the junior play area cool.



ENJOY / GREAT ESCAPE

Boaties will love all that Port Fitzroy on Great Barrier Island has to offer. It is sheltered in all weather conditions and guarded by Kaikoura Island, a beautiful nature sanctuary.

MAIN PHOTO / AUCKLAND DRAGON BOAT ASSOCIATION; TAHUNA TOREA NATURE RESERVE & PORT FITZROY / JAY FARNWORTH; BRYLEE RESERVE WETLAND / TEGAN HOYLE



LIQUID ASSETS

Rodney Local Board has helped 38 applicants to protect 43ha of riparian habitat under its Healthy Harbours and Waterways Fund, set up in 2017. Applicants install kilometres of fences to keep stock out of the water and undertake extensive planting to reduce erosion. Board deputy chair Phelan Pirrie says the scheme is creating “corridors of protected waterways that will restore the natural environment”.

FOR MORE
OF YOUR LOCAL
NEWS VISIT
OURAUCKLAND.NZ

SAD LESSONS

The deaths in January of two swimmers in Franklin – at Hunua Falls and Maketu Falls – highlight the need for people to be cautious around waterways, says Franklin Local Board chair Angela Fulljames. Franklin has hundreds of popular swimming holes, but swimming in unguarded spots always presents a danger, she says. “Swimming is actively discouraged at Hunua, yet every summer, people swim there despite warning signs. It is doubly tragic because the Hunua Falls are one of the most beautiful places in the district and thousands enjoy them every year. We would prefer people use beaches and pools, where there are fewer risks, and lifeguards are on hand.”



SOGGY SITE GETS NEW LIFE

'USELESS QUAGMIRE' TURNED INTO AN ATTRACTIVE WETLAND

Turning a water-logged and frequently flooded area into a thriving wetland has created a major asset for the Takanini/Papakura area.

The Brylee Reserve wetland was created as part of the solution to stormwater-management problems around Conifer Grove, and Papakura Local Board chair Brent Catchpole says it is now a thriving ecosystem that attracts many visitors.

Auckland Council’s Healthy Waters department developed the wetland on the northern part of Brylee Reserve, an area previously plagued by poor drainage that made it virtually unusable during the wetter months of the year. “Residents of the area loved the reserve and its wide-open spaces,” Catchpole says, “but come the rainy season, the place was a quagmire that was virtually useless.”

Extensive planting was undertaken, pathways added and upgraded and interpretive signage put up around the wetland to increase recreational opportunities on the reserve.

“We couldn’t be happier with what has been achieved. The wetland area and the pathways along the Manukau Harbour and through the mangrove environment are a real pleasure to access and there is always something new to look at.”

ALL ABOARD

The Hobsonville ferry service now runs every weekend.

On Saturdays, seven services run between Hobsonville, Beach Haven and the Downtown Ferry Terminal and on Sundays, there are six sailings.

The Hobsonville community expressed strong support for the weekend service and is contributing to the cost.

“Hobsonville Point is growing rapidly, and this additional service is a key part of the plan to grow and improve the ferry network,” says Albany Ward Councillor Wayne Walker.

Visit AT.govt.nz for more information.



Art and activism

Rosanna Raymond, a core member of the Pacific Sisters art collective, discusses identity, creativity and the group's new retrospective in Auckland.

In the early '90s, the Pacific Sisters challenged pre-conceived notions of Pacific perspectives. Born out of dissatisfaction with the white faces and stories dominating Auckland's narrative, their fashion, dance, music, film and photography expressed complicated issues about being New Zealand-born, mixed-race and different, and their collaborations spun out into shows on the streets that eventually broke into the mainstream and into white-walled galleries.

A major retrospective – first shown at Wellington's Te Papa last year – has now found its way to Auckland Art Gallery, in the city where it all began. The exhibition weaves a visual story of Māori and Pacific creativity, identity and sisterhood and showcases work that smashed stereotypes.

Our Auckland: How does it feel coming to Auckland?

Rosanna Raymond: It's really exciting for us ... There are a lot of people here who were directly connected to the Pacific Sisters and actually saw us, were a part of us, bought something off us or danced and partied with us. So we feel like it's a homecoming. Homecoming queens.

OA What was the art scene like when you formed in the '90s?

RR You could count the number of [Pacific] artists on one hand. And they were mainly men – Fatu Feu'u, John Pule, Johnny Penisula. So when I first met Ani [O'Neill], it was through a friend of mine who told me about this amazing young artist who had this end-of-year show out of Elam. So I went to that. I always say it's like a love story; we all kind of fell in love with each other. The Pacific Sisters came as we were bouncing around the clubs and streets, and that's when the movement was happening, too – Pacific theatre, Pacific art, the writers.



So we were just a piece of the jigsaw puzzle, really.

OA What do you think the Pacific Sisters did for Auckland?

RR It's really hard to ask us, because we were really flabbergasted. Even when Nina [Tonga] said, 'I really want to curate this show', we were looking at her going, 'Why?' It's funny, because we struggled through those times. We weren't accepted. We weren't accepted into the art world. But what a lot of the next generation have told us is they see us and all of our antics and go, 'Oh, wow. That's me.' But we definitely changed the cultural landscape as to what people thought of Pacific Island art and culture. We stood up to things we believed in in terms of the tino rangatiratanga movement, the legalise marijuana movement, the queer movement.

OA What has changed since then?

RR There's just so much more. Back then, there would be four Pacific Island events in a year, now there's about four a week. And I see that our youth are just so much more confident. But then on the flipside, there are still a lot of the same issues that I see the young artists dealing with. They're still dealing with identity, being a New Zealand-born Pacific Islander. So all those things are still bubbling away.



1. Rosanna Raymond wears her own work and an eye-piece by Hawaiian artist Maile Andrade.

2. The Pacific Sisters collective has collaborated in the production of fashion shows, art performances and musical events on and off since 1992.

OA Which artists are doing cool things in Auckland right now?

RR Oh my God, I have so many that I love. It's like asking to choose a favourite child. I came back from London because I kept looking through social media and going, 'Wow, those guys are going off, and they're having way too much of a good time. I'm coming home. That's enough.' I got complete FOMO. A lot of my heroes I work with – Ani, Lisa [Reihana]. And then of course you've got the likes of the FAFSWAG collective, who are just next level. JEAN TENG

PACIFIC SISTERS: HE TOA TĀERA | FASHION ACTIVISTS, AUCKLAND ART GALLERY, SAT 23 FEB - SUN 14 JUL



Nine retirement villages in Auckland

Independent living • Assisted living • Resthome • Hospital • Dementia care



2 Rangatira Road, Birkenhead
482 1777



795 Chapel Road, Howick
535 0220



221 Abbotts Way, Remuera
570 0070



30 Ambassador Glade, Orewa
421 1915



184 St Heliers Bay Road, St Heliers
575 1572



Logan Campbell
RETIREMENT VILLAGE

187 Campbell Road, Greenlane
636 3888



11 Commodore Drive, Lynfield
627 2727



5 Lisle Farm Drive, Pukekohe
238 0370



7 Ngataringa Road, Devonport
445 0909



1. Non-compliant sites are being targeted. 2. Construction near a waterway at Ormiston.

Fixed or floating?

As new buildings continue to sprout up around the region, Auckland Council and local boards are working with builders and developers to stop hazardous substances from seeping into our waterways.

More than 13,000 consents for new homes were granted in Auckland last year. And while that might be good for housing affordability, it's not so good for the region's waterways if builders and their subcontractors aren't carefully managing their building waste on site.

"We have seen sites with rubbish piled up everywhere, sediment washing off building sites into streams, and blocklayers cutting blocks and mixing concrete on roads which lead to waterways," explains Steve Pearce, the council's Regulatory Compliance Manager. "All of that was ending up in our streams via the stormwater network. We know our urban waterways are some of our most polluted so we need to stop the pollutants from those construction sites getting into the water."

As the scale of the problem became apparent to the council's regulatory team, they decided to change tack and launched a series of programmes across the region in an effort to raise awareness with developers and builders, and prevent damage to Auckland's natural environment.

Local boards also rolled out the Small Builds Ambassador Programme, to specifically target the issue of building waste and sediment running off into waterways. Working together

at a local community level, council's regulatory team and local boards are finding the proactive approach is paying dividends. "Historically, we were reactive and only responded when there were complaints. But because we saw such a massive construction boom and with it a massive level of non-compliance, we identified which areas had the worst breaches and effectively blitzed them: we went door-to-door, talked to builders and subcontractors, and issued abatement notices. Around two-thirds complied within a week."

Local boards have been instrumental in carrying out these inspections, including in Flat Bush, where the first local programme was launched in January 2018 after 398 of 400 sites were found to be non-compliant.

"We are one of the fastest growing areas in Auckland," explains Howick Local Board Chair David Collings. "We are also the largest special housing area in the city. There is a huge amount of construction going on. Last year we carried out a spot check and more than a dozen sites in one street were in breach of the rules, despite warnings and a campaign to educate builders in the area."

The compliance and education programme has now been rolled out

to other areas including Takanini, Long Bay, Millwater, Pukekohe, Huapai and Hobsonville. Local boards are hopeful that educating builders about damaging practices will stop pollutants entering waterways. Pearce says, however, that the council will issue fines or even prosecute offenders under the Resource Management Act.

"Since the programme started, we have issued around 1600 abatement notices, and infringement fines are \$750 each. It is a zero-tolerance approach – we are working hard with small building sites to help them comply and we will take action against people who continue to flout regulations and cause damage to our waterways. We haven't prosecuted anybody yet but that is a tool in our back pocket."

The council is also working with construction and demolition industry leaders to proactively manage building site waste and every year invites major earthworks companies to hear from industry leaders and help them catch up on the latest innovations.

Talking to developers is important, Pearce explains, but his team wants ordinary people to help protect their local waterways, too. "If you see anything that you think could be doing damage, call us on 09 301 0101, or if you're a local builder or subcontractor and want more info on what you need to do on a building site, everything is on the Auckland Council website."

The council's combination of education and enforcement has led to results. The initiative has made headway in keeping waterways free from construction waste and run-off but there's still more that can be done and local boards are actively supporting the ongoing work of the Small Builds Ambassador Programme.

"The really pleasing thing to see is that entire subdivisions are better now than they were 12 months ago," Pearce says. "The next challenge for us is to make sure it continues." SAM BUTTON



Feedback is
open from
28 Feb -
31 March 2019

Have your say...

on proposed speed limit changes around Auckland

To make our roads safer, Auckland Transport wants to introduce a new bylaw to set new speed limits, including lower speed limits for approximately 10% of Auckland's local roads.

To provide feedback, go to:

[AT.govt.nz/haveyoursay](https://at.govt.nz/haveyoursay)



All talk, all action

For democracy to function, it requires engaged citizens – and politicians who listen to them. This year's Annual Budget consultation is inviting residents to have their say on the issues that affect them. Across the region, genuine community engagement is already on the rise, and when, in 2017, the community in Manurewa asked the council to clean up their local beach, that's exactly what happened.



Weymouth Beach in Manurewa was once considered one of Auckland's filthiest. Its polluted waters had been deemed unswimmable for around 18 years, but in October last year, it was one of four beaches in Manukau to have long-term public health warnings lifted. And that huge achievement can be put down in large part to a local community that kept asking its representatives to do something about it.

Since 2000, extensive work to correct and fix damaged waste and stormwater pipes has been undertaken, with the Manurewa Local Board, Watercare and Auckland Council leading the way. But engagement from the local community – including the younger generation – helped accelerate the project. Conversations led by the Manurewa Youth Council, a group of 26 people between the ages of 12 and 24 who are selected annually to reflect the diverse community, proved a key influence in making Weymouth Beach swimmable again. And for 21-year-old chair Damian Piilua, the process reinforced the strong relationship his organisation has with the Manurewa

Manurewa Youth Council chair Damian Piilua at Weymouth Beach.

Local Board, which, like all of the 21 local boards across the region, is responsible for allocating funding to specific projects in its ward.

"In 2017, the Manurewa Youth Council was approached by Auckland Council to pilot a crowdsourcing platform called 'All Our Ideas', says Piilua. "We used it to ask young people what their biggest desires were for Manurewa. In three months, we collected more than 3000 responses. 'Make Weymouth Beach clean, swimmable and accessible' was the most popular answer."

This has been a priority for the Manurewa Local Board and the community for a long time. And Piilua says the All Our Ideas campaign really just confirmed they were on the right track with prioritising it.

"We are confident they took into consideration the views of the youth and community," he says. "This is reflected in the local board plan, which highlights some of the feedback received through the platform."

The 2018 Integrated Area Plan for

Manurewa, Takanini and Papakura outlined the vision for these areas over the next 30 years, and consultation with the community played a key part in understanding their needs and the importance of addressing the issue of water safety within the area.

This is just one example of what can be achieved when a community speaks up for what it wants. Across the region, genuine community engagement is on the rise. Last year, as part of the 10-year Budget/Auckland Plan consultation, more than 30,000 submissions were received. Since the previous regional consultation, in 2015, the number of submissions from Māori communities doubled, those from Asian communities tripled, and online submissions rose from 27 per cent to 52 per cent.

Charged with providing input to the mayor and councillors on issues that are important to Aucklanders aged 14 to 24, Piilua's work is crucial to get the youth engaged with decisions that may affect their future.

"It will always be a challenge to collect enough feedback that is truly representative of the youth population and while there was hesitation at first to get involved, simply because we had never heard of or used a crowdsourcing platform, we were also very aware that we were piloting the platform on behalf of the Community Empowerment Unit. That was a huge responsibility. To have this warning [against swimming] removed was a huge achievement and milestone for the community. The local board has proven they take the voices of young people and the community seriously."

It's a significant win for the area and has opened the community's eyes to the power of the collective voice.

"We've learnt there is a need for more investment into our waterways and harbours so they can keep up with the pressures and added demands of a developing city," says Piilua. "There is also a need for local boards to be well supported and resourced so they can continue to improve their waterways and beaches."

AKHAVEYOURSAY.NZ IS THE PLACE WHERE YOU CAN HELP SHAPE AUCKLAND. WE'RE CURRENTLY CONSULTING ON OUR PROPOSED 2019/2020 ANNUAL BUDGET, TRANSFERRING THE OWNERSHIP OF SOME WATERFRONT PROPERTIES FROM PANUKU TO THE COUNCIL, AND WE'RE DISCUSSING OUR WATER FUTURE. VISIT AKHAVEYOURSAY.NZ - OR CALL 09 301 0101 FOR MORE INFORMATION.



VR, me hearties

The NZ-VR project is using cutting-edge technology to connect young New Zealanders to their marine environment and inspire them to do more to care for it. The Hauraki Gulf and its surrounding waters were the first to get the virtual-reality treatment.

Growing up, James Frankham, publisher of *New Zealand Geographic*, spent summers with his family at the bottom end of Waiheke Island. Now spending time on the Hauraki Gulf with his own young family, he's got to know the area even more intimately, during production of the NZ-VR project – a virtual-reality experience that showcases the wonders, and worries, of the region's underwater realm.

The project began 18 months ago, after *New Zealand Geographic* sat down with the Sir Peter Blake Trust and the Pew Charitable Trusts – a global NGO working to protect the environment and support scientific research – to figure out the best way to get attention for their conservation messages.

"Ocean conservation suffers from a massive image problem, because no one can see or easily experience something that's covered up by 30 metres of salt water," says Frankham. "Unless you experience something, how can you really care for it, when you don't have the tools for empathy?"

Until now, he says, the best way to do that has been taking classes of kids to snorkel through marine reserves, like Goat Island near Leigh, or to get photos and stories published in the media. Nothing will ever replace a real-life experience, he says, but "virtual reality is now the best tool to recreate that experience".

The Hauraki Gulf and its connecting waters were the focal point for the first phase of the NZ-VR project. Frankham

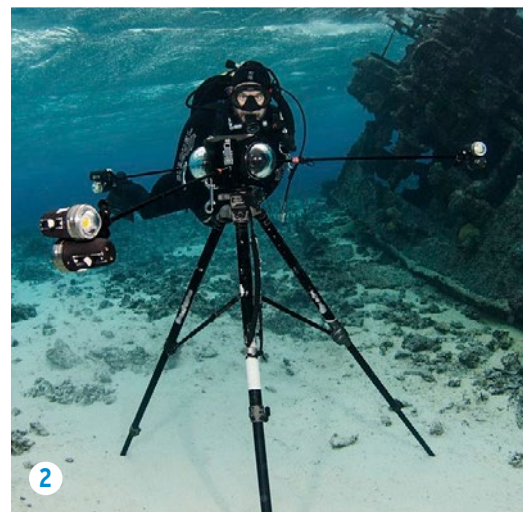
directed the video production, working with producer Lucy van Oosterom, a marine biologist and Blake NIWA Ambassador in 2013, and award-winning photographer Richard Robinson. The project was funded by a grant from Foundation North.

The crew travelled north to the Three Kings Islands and Parengarenga Harbour, down to the Poor Knights and Goat Island, out to the edge of the continental shelf, and inside the gulf itself. They were determined to capture the good and the bad within the gulf to create a realistic picture of its health.

"Some of the pristine environments we've filmed have been mind-blowing," says Frankham. "It's amazing to think that more of the gulf could be like that if it was properly protected."

One of the highlights was filming dolphins surfing on the bow of the boat: "When you put the VR headset on ... you actually feel like a dolphin." But they also filmed sewage coming out of overflow points into the Waitematā Harbour and effluent in creeks that flow into the Waiheke Channel. Frankham was also alarmed by what he believes is a significant decrease in fish numbers.

The Sir Peter Blake Trust's objective was to deliver an immersive experience to schools through the NZ-VR project, so students could see both the rich biodiversity below the surface and the damage that's been done to the ecosystem. "This technology is an awesome way to reach a large number of young people in an impactful



1. "Mind-blowing" environments were found.
2. Richard Robinson at work on the project.

way with a message that educates and inspires them to care for the environment," says the trust's head of community engagement, Kelly Bleakley.

With content already trialed in a number of Auckland schools, Bleakley says students have been "blown away" by the footage and love the VR technology.

For schools in Northland and Auckland, a travelling educator will take classrooms through a one-hour roadshow session. And for schools around the country, the trust has teaching resources to accompany the video content, in both the science and social studies curriculum, especially in Years 9 and 10.

The trust's long-term plan is to have the educator travel to schools throughout the country, and create virtual-reality footage of the marine environment in those areas. And *New Zealand Geographic* has a "wild dream" to eventually create a virtual experience of every biome in New Zealand – from mountain peaks to deep seas. SUZANNE MCFADDEN

**TO VIEW THE NZ-VR PROJECT,
VISIT NZGEO.COM/VR**



1

Bringing back the Bandit

Sir Peter Blake was a key player in this country's maritime history. And now a key part of his own history – the first boat he built, Bandit – has been restored and is on permanent display at the Maritime Museum in Auckland.

In 1966, a 17-year-old Peter Blake, his brother Tony and their good friend Crawford Duncan started building a 7m keelboat called Bandit in the backyard of the Blake family home in Bayswater.

Thirty years later, Blake, by now a knight, had become one of the world's most celebrated yachtsmen, having circumnavigated the globe six times, defended the America's Cup and headed ecological expeditions from the Antarctic to the Amazon.

All these achievements can be linked back to that backyard DIY project. It was on Bandit that he learned his craft, with the three young men spending the summer of 1968 sailing and racing it



2

on the Hauraki Gulf. They went on to compete in the 1968-69 racing season and won the Akarana Junior Offshore Group Championship.

Now, fittingly, Bandit sits next to one of Blake's more famous boats, Black Magic, in the New Zealand Maritime Museum.

Bruce Tantrum of the Classic Yacht Charitable Trust started the restoration process after a meeting with Viv Wyatt, who had acquired Bandit in the late 1990s and kept the boat in a shed in Warkworth. Wyatt gifted it to the trust, which paid a token sum of 20 cents to complete the transfer.

After 14 years in storage, the yacht was completely restored by Yachting Developments in Hobsonville, using as much of the original gear – rigging, fittings and sails – as possible.

Ian Cook, superyacht builder and owner of Yachting Developments, says some of the apprentices involved in the two-year restoration project were amazed by the craftsmanship and finishing of the boat and what the three youths were able to achieve in the Blakes' backyard.

1. Bandit being restored in Hobsonville.
2. The keelboat under construction in 1966. Lead for the keel was melted in an iron bath on the lawn.

"What Peter, Tony and Crawford created with Bandit was the start of a legacy that inspired many young New Zealanders to get into boating. It represents the beginning of a journey which shows that if you dream, you can achieve great things."

Along with donations from Blake's family, friends and associates, the \$42,000 restoration was completed by Cook in exchange for three of Tantrum's model boats.

Tantrum says having this key item of memorabilia housed in the museum's Blue Water Black Magic gallery next to NZL 32, the boat Blake led to victory at the America's Cup in 1995, is like "a little duckling alongside its mother duck".

ENTRY TO THE MARITIME MUSEUM, WHICH IS CELEBRATING ITS 25TH ANNIVERSARY THIS YEAR, IS FREE FOR AUCKLAND RESIDENTS WITH PROOF OF ADDRESS.

Researching interventions to delay developing cataracts

Cataracts are the leading cause of blindness and age is a major risk factor. What if they could be delayed or even prevented by a simple eye drop treatment?

That is the hope of Dr Julie Lim, a Senior Research Fellow at the Faculty of Medical and Health Sciences at the University of Auckland, who is part of a team searching for non-invasive ways to prevent cataracts rather than treat them with surgery.

"Having cataracts is like seeing out of a really dirty window, it is all fuzzy and people cannot make out objects clearly," Julie says.

"With age the risk of getting cataract increases. Having cataracts means you're more dependent on others. It makes life really hard.

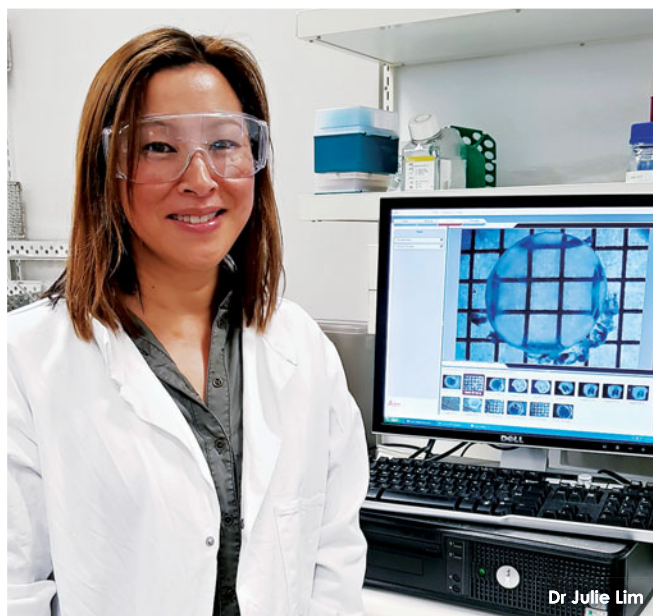
"Surgery is an effective way to treat cataracts - you remove the cloudy lens and replace it with an implant to effectively restore vision.

"However, because of our aging population, and an increasing population with diabetic cataracts, there is significant demand on our public hospital system, increasing wait times for cataract surgery."

There are 17,000 publicly-funded cataract operations performed each year. However, the total is near double this when factoring in private surgeries.

"We would love to develop an eye drop that would delay or even prevent the onset of cataracts, something that is non-invasive, that could reduce the impact of cataracts for individuals and reduce the pressure on the hospital system.

"We get age-related cataracts because with time, the lens becomes depleted of



Dr Julie Lim



Clear, sharp image



Blurry, cataract view

antioxidants that normally work to protect the lens," she says.

"Our lab is looking at ways to enhance natural antioxidant defense mechanisms of the lens to protect it from damage and cataract formation."

While a lot more research is required, Julie hopes one day an eye drop could be developed to help protect the lens from oxidative damage.

"You put on sun cream to prevent sunburn, you brush your teeth to avoid decay. Imagine if you can put eye drops in to minimise the risk of damage to your lens and possible blindness."

Julie has been passionate about understanding how the lens works to improve eye health since she qualified with her PhD in 2004, and she has benefitted

from several grants from the Auckland Medical Research Foundation (AMRF) since 2009.

"Without the AMRF I would not be able to do this research. I have done all of my training here. I didn't go overseas because the funding allowed me to stay in Auckland."

Sue Brewster, Executive Director of the AMRF says the Foundation believes eye health is an important area to support.

"Funding of this type of research has the potential to improve the quality of life for hundreds and thousands of people.

"We try to take a long-term view and support researchers for as long as possible, but there are always far more applications for funding than we can possibly meet."

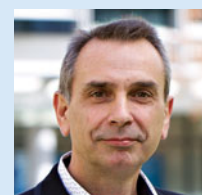
Free eye health public lecture

Dr Julie Lim has presented her work in several cities around the world and is talking about her research at a free AMRF public lecture in Auckland on March 27 at the Faculty of Medical & Health Sciences, University of Auckland.

She will be joined by AMRF Doctoral Scholarship recipient Joyce Mathan and Professor Trevor Sherwin, two other eye health researchers at the AMRF's first in a series of free lectures.



Joyce Mathan is a therapeutically-qualified optometrist, researching a potentially-blinding disease of the cornea – Keratoconus – that is more common in Down syndrome.



Professor Trevor Sherwin has a PhD in Cell Biology and has published 80 papers in top-ranking journals on his work with corneas. He specialises in cell reprogramming, ocular stem cells and corneal engineering and has presented his work at the prestigious open lectures at the Natural History Museum in London.

The Auckland Medical Research Foundation lecture is open to the public and free to attend. Pre-registrations only. To book, go to Eventbrite.co.nz – searching 'Focus on your eye health'.

Public donations are vital to funding medical research. To find out more about research projects the Auckland Medical Research Foundation invests in go to www.medicalresearch.org.nz



Auckland Medical Research Foundation
est. 1995

THE SHAPE OF WATER

Aucklanders have long had a love affair with the water that surrounds us. But we tend to take for granted the clean water that flows from our taps and the complex systems required to funnel it away.

As Auckland grows, so does the pressure on our water supply – and water quality. And, like every other city on the planet, we face difficult decisions to ensure the future’s watertight. **Hayden Donnell** looks for answers to some tough questions.

Twice a year, Chris Burton and a team of volunteers descend to the banks of the Henderson Creek in Te Atatū South. They walk into the mangroves that grow near where the stream meets the Waitematā Harbour and pluck out mounds of other people’s trash. It’s not hard to find. On any given day they’ll fill up to 25 black bin bags. There’s discarded milk bottles, drink bottles and food wrappers. But there’s also more unusual ephemera – household items and coconuts that have floated in from afar. More than once, Burton has pulled a safe out of the stream.

“I think over years and years, we’ve neglected water quality and put our waterways second,” he says. “There’s an out-of-sight, out-of-mind mentality. It’s not until you scratch below the surface that you see how big the problem is.”

Henderson Creek’s story is a familiar one in Auckland. Despite a



modern culture of innovation and improvement, looking after our waterways is a constant reckoning with the practices of the past. For too long, Aucklanders didn’t really connect the dots between the liquid falling from the sky, flowing from our taps and pouring down our drains, and the health of our waterways. We’re already cleaning our water in state-of-the-art treatment plants, protecting our groundwater and building new wastewater infrastructure, but there’s plenty more we need to do.

To avoid those mistakes of the past and plan for the future, Auckland Council is creating a water strategy for the next 50 years. The issues it needs to address are some of the most pressing facing our city. Yet for many of us, water is still an afterthought – an issue humming in the background of our raucous debates over roads and rates. It should be higher up the agenda. We need to start thinking more about our water, because how we answer the questions over its future use and management will help shape Auckland’s future.

Where will Auckland get its water from?

Most people don’t worry about Auckland’s supply of clean water. Why would they? Rain clouds often billow off the Tasman and station themselves over the city, drenching unwary tourists and ruining summer weddings. There are tropical cyclones. Unseasonal lows. Four seasons in one day.



But while Auckland has very reliable rainfall, the city hasn’t been self-sufficient when it comes to its own water supply since the 1970s. Most of our drinking water now begins its journey in the Waikato region, either in the dams of the Hunua Ranges or the flow of the Waikato River. It’s piped and pumped from those places through water-treatment plants in Tūakau or Ardmore, stored at reservoirs on Redoubt Road in Flat Bush, then propelled all the way to Orewa.

While that setup is fine for now, potential problems are bubbling on the horizon. For one, there’s the



question of the system's resilience. In March 2017, a torrential downpour dubbed the Tasman Tempest filled the Hunua reservoirs with unprecedented levels of sediment. The Ardmore Water Treatment Plant, which treats between 60 and 70 per cent of Auckland's water, was put to the test by the sludgy tide entering its system. While the quality of our drinking water was not compromised, other treatment plants were put into overdrive, and Aucklanders were asked to conserve water while the problem was fixed. Work is under way to make these systems more resilient, but those kinds of issues could become more common

with climate change set to increase the number of extreme weather events in the region.

Just as pressingly, Auckland's current water supply may struggle to keep pace with its booming population growth. Auckland Council's Water Portfolio Manager, Andrew Chin, says an application is in place to take extra water from the Waikato River that will meet our urban water needs until 2050, when the city's population is expected to be around 2.4 million. After that, the council will likely have to bring in a new water source. "That seems like a long way away but when you're talking about major

1. Henderson Creek 2. Watercare's board visiting the Ardmore Water Treatment Plant 3. Community Waitākere chair Mark Allen 4. Rubbish removed from a waterway 5. The Lower Nihotupu Dam in the Waitākere Ranges

infrastructure, it's going to take a long time," Chin says. "Most people have no idea that this issue is coming. But we need to start thinking about these big infrastructure choices."

The amount of water being used in Auckland is increasing because of population growth, but the amount of water used per person is falling because people and businesses are becoming more water efficient (see sidebar p 21).

The council's strategy is to keep pushing for efficiency gains across the network, something helped by new technology and ongoing education, but we will eventually need a new water source. One option could be a new dam. But where, and at what cost?

Penny Hulse, Auckland Council's Environment and Community Committee chair, says there are few places left for us to dam up. "We have the Hotoe River up north but that's not really big enough and it's incredibly expensive – we're talking

hundreds of millions of dollars.”

Chin says dams are often controversial due to their environmental impacts and the fact building them often requires forcibly taking land.

What about desalinating seawater? The Gold Coast already uses that method, but it does so at huge expense. Its desalination plant cost AU\$1.2 billion to build, and uses an abundance of electricity to operate. Authorities built the plant only after squeamish residents rejected another option – recycling wastewater. It’s probably the most sensible option for Auckland. The prospect of recycling the water that goes down toilets and putting it into the drinking supply will send many Aucklanders into fits of dry-retching. But it’s a process that’s effectively already in place here, with about 20 per cent of Auckland’s water coming from the Waikato River. “People might think, ‘what a hideous idea,’” Hulse says. “But we drink recycled wastewater when we go to London, and it’s essentially what we’re doing when we’re drinking Waikato River water.”

Chin says recycling would be a cheaper and easier way to bulk up our water supply. “Wastewater recycling is a proven technology that makes efficient use of this increasingly scarce resource. The challenge is getting people over the ‘yuck factor’ and thinking positively about recovering and reusing water and minimising waste.”



6. Cox’s Bay 7. Sentinel Beach, Herne Bay 8. A cycleway alongside Cox’s Creek

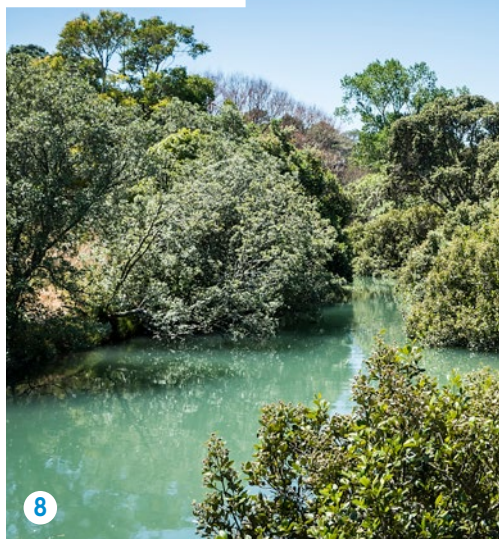
Future water sources all have potential issues and risks, and the council’s water strategy is all about working through those issues and choosing the best options. But it still wouldn’t make as much of a visible difference in Aucklanders’ day-to-day lives as our efforts to clean up the city’s waterways.

How do we stop Auckland’s streams, rivers, beaches and harbours from becoming polluted?

On a fine day, Auckland’s inner-city beaches are pristine people magnets, their white sand packed with groups of friends and families. A little bit of rain, though, and things can change. Contaminated stormwater carries a range of urban pollutants that can make our beaches unsafe for swimming. Chin says that’s not acceptable any more. “Most people think water quality is a problem with dairy farming. But hectare for hectare, the impact of probably the worst-performing dairy farm is nothing compared to the impact of urbanisation on waterways.”

Auckland Mayor Phil Goff has repeatedly stressed the importance of fixing the issue, and Watercare is building the \$1.2 billion central interceptor sewage pipeline, which will carry most of the current Western Isthmus overflows underground for 13km from Western Springs to a treatment plant in Māngere, cleaning up waterways and enabling more growth near the central city.

That’s still six years from



completion, though, and it won’t fix everything, Chin says. A water quality targeted rate passed in the council’s 2018 10-year budget will go towards upgrading the stormwater systems and the near-surface plumbing. “If I use a road analogy, the central interceptor is like a motorway, but you still have to upgrade all these local roads to optimise the use of the motorway,” he says. “There’s a lot more work that still needs to be done. It’s very much a marathon, not a sprint.”

Improving wastewater and stormwater systems is only one part of the equation, though. Sedimentation from construction is a major source of pollution in our waterways, and has the potential to get worse as development ramps up across the city, Hulse says. The council is undertaking a major study on the impact of sediment on the marine environment in Okura,



TAPPING IN

Whether it's for residential or recreational use, many of us seem to take water for granted. But Auckland's stormwater, wastewater and freshwater networks are huge and extremely complex. Here are some numbers that illustrate the challenge of providing and protecting water in a big city.

Auckland Council, Watercare and Auckland Transport look after:
365 million litres of drinking water per day; 450 million litres of wastewater per day; 474 rivers and streams; 6300km of stormwater pipes; 8000+ km of wastewater pipes; 9200+ km of water supply pipes; 330,000+ manholes; and 27 drinking water sources.

In Tāmaki Makaurau, there is 11,117sq km of ocean, 3200km of coastline, 16,500km of permanently flowing rivers, 72 natural and artificial lakes and multiple aquifers.



Watercare's wastewater network consists of 167,264 manholes; 18 treatment plants and 518 wastewater pump stations.

Auckland's residential per-capita use of water shows a reduction from approximately 167 litres per day in 2012 to about 160 litres per day in 2016. Residential water use in Auckland is low in comparison to other metered cities in New Zealand and compares well with Australia, but it's higher than in many cities in Europe.

Fifty-four per cent of water supplied goes to residential households, 25 per cent to non-residential customers and five per cent to bulk users. The rest – 16 per cent – is 'non-revenue water'. This includes water used for firefighting, cleaning of water mains, burst water mains, illegal connections, meter under-reading and leakage.

Auckland aims to save 21 million litres of water per day by 2025, a reduction of 15 per cent from 2004 levels. This will defer the need for the next water source for 10 years.

Currently, \$9 per \$100 of your rates is spent on stormwater. Watercare is responsible for the water supply, wastewater and associated infrastructure and is funded by user charges.

The good news is, Watercare's massive investment in wastewater improvements and the council's targeted rate for water quality are being implemented now. We've chosen to act before our water quality becomes as poor as that in many other cities worldwide.

which should help guide its future restrictions on developers, she says. "The really big challenge is starting to quantify the impact of what we do on land on our marine environment."

Making sure new developments are water-friendly will also have an impact. Auckland used to have a culture where waterways were seen as something to pipe up and concrete over in the name of construction, Chin says. That led to "urban stream syndrome", where artificial and impervious surfaces sped up water runoff, leading to faster erosion. "All that erosion of the stream banks is what's moving a large proportion of the clays and sediments into the harbours and estuaries."

Many newer developments are intended to mimic natural systems in a way that minimises erosion, he says. Instead of buildings being designed to get water to move away as fast as possible, water is incorporated into

their makeup. He points to the new urban gardens installed at Wynyard Quarter as a development that's both functional and in tune with nature.

"We want to create those urban spaces where we look after water and it really becomes part of the amenity."

What is the community's role in keeping waterways clean?

Expensive new infrastructure may be one part of the solution. Another is old-fashioned hard work.

Mark Allen is the chairman of Community Waitākere, which administers the cleanup efforts on the Henderson Creek as part of the larger environmental initiative Project Twin Streams. He says the hours Chris Burton's team and other Project Twin Streams volunteers have put into cleaning and replanting have made a difference not just to the state of the west's waterways, but to the communities nearby.

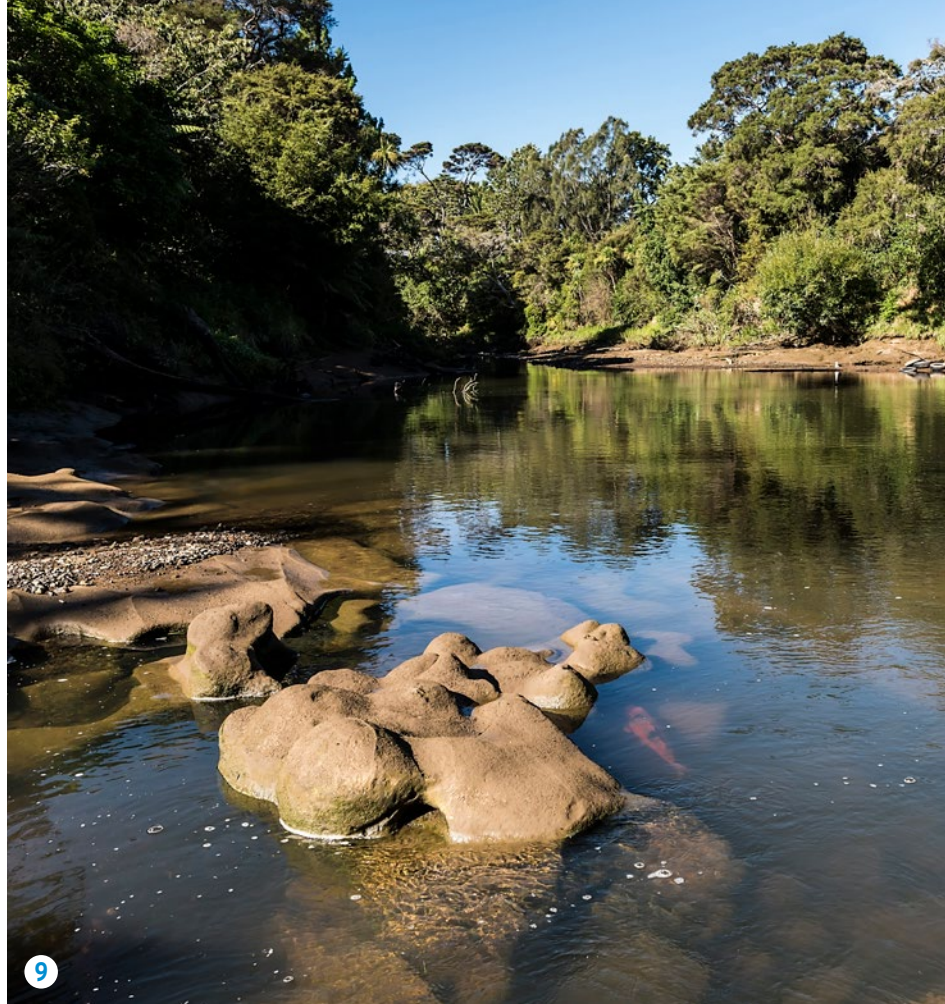
"People had turned their backs on our stream. It was weed-infested. It had lots of things dumped in it. One of the things we see now is that people feel connected to the place. We know how we're connected to the animals and the plants and the waters that surround and support us."



But Allen acknowledges his organisation is more the ambulance at the bottom of the cliff. The biggest problem facing a waterway like Henderson Creek is that people don't know how much it's impacted by their actions, he says.

"They don't realise that when they pour their carwash down the local stormwater drain, they're going to be damaging the fish stock downstream. They don't realise that one dumping at the back of the service station can just set things back so many years."

Out on the Manukau Harbour, a more administrative cleanup is



under way. Decades ago, the harbour was literally a dumping ground for Auckland's waste. Commercial waste was expelled into the water.

Manukau Harbour Forum chair Saffron Toms says one of her fellow forum members remembers blood from a freezing works being discharged into the harbour. Her forum's purpose is to improve the harbour first by investigating its current ecology in a study known as a hydrodynamic model, then advocating for it to be properly managed.

"It's been the poor cousin [of the Waitemātā Harbour]," she says. "We take our water environments for granted. And they still look beautiful on a sunny day. They look blue and clear, but we can't see what's going on underneath. And it's really ripe for neglect if we don't pay attention to it."

Chin says new technology will help the council to understand the impact of human activity on waterways like the Manukau Harbour. Cheaper and more accurate sensors are making it easier for engineers to get real-time data on water quality, and that allows them to build better models on long-term impacts.

"Traditionally, it has always been very hard, with expensive monitoring and sampling, to understand whether the things we're doing are making a difference. We have a lot more of an idea about what's working now."

What can we learn from tikanga Māori?

The true impact of human activity on waterways may be slowly dawning on Pākehā, but it's not news for Māori. Tame Te Rangī, who leads the environment Pou for the Auckland Council Mana Whenua Kaitiaki Forum, says Māori have always been aware of how water systems interact. "I'd put it this way: The present landscape of Auckland is a testimony to ignorance," he says.

A more holistic view of water is reflected in the concept for freshwater management the Kaitiaki Forum has put forward for Auckland. Whereas the national policy goal for water is 'Te Mana o Te Wai', in Auckland it's rephrased as 'Te Mauri o Te Wai'. That emphasis on mauri – or lifeforce – is there because much of the city's water network is still too degraded to think now about mana, Te Rangī says. "We can't even dream about talking 'Mana o Te Wai' in a Tāmaki context if we haven't addressed issues of mauri – or the ability of that water to provide sustenance and life," he says. "One precedes the other."

The aim of restoring mauri is an overarching guide for all Auckland's water initiatives. It's a mission statement that gives emotional resonance to planning documents or infrastructure projects. Water that has mauri can sustain ecosystems.



9. Henderson Creek 10. The Awakeri Wetlands at Takanini, where a major flood-mitigation project is under way

Wetlands Project. It's an impressive piece of soft engineering, but Chin says we face tough choices when it comes to building in areas like Takanini as climate change starts to intensify flooding risk.

"It's incredibly expensive and very difficult to manage these floods. Should we continue to grow there when the risks are really high?" he says. "It's a wonderful piece of new engineering thinking but at the same time you wouldn't have to do it if building was done in a different place."

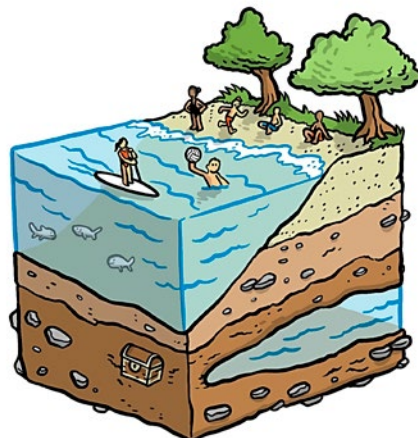
Hulse points to Piha as another place where the council is already being confronted with the fallout from climate change. Several low-lying houses in the town are at risk of flood inundation. In March, her committee will receive a report on its options when it comes to those properties.

"The report will be coming to us and saying things like, 'Do we buy some houses? Do we have managed retreat?' That will be the first time we have to start making decisions like that."

It's unlikely to be the last. Climate change is going to make many other areas more prone to inundation. Chin cites Tāmaki Drive in east Auckland as another example. It already floods during a king tide, and climate change is going to make that a more frequent occurrence. It will also pose challenges for the health of waterways like Henderson Creek and the Manukau Harbour, and the stability of our water supply.

What can we do as individuals?

All this can sound overwhelming. But there are things we can do every day to change the quality of our water network. Those could be as big as



It's drinkable and swimmable. It's not awash with sewage overflows, dammed up by shopping trolleys or full of runoff from building sites or industry (see p 12). It sustains life, and that will give it mana.

What do we do about climate change?

The biggest threat to the mauri of Auckland's water doubles as the biggest threat to life on Earth. Climate change is expected to profoundly impact Auckland's waterways in myriad ways, from changing the level of the sea to the amount of rain that falls from the sky. It's where water interacts with just about every other part of council strategy, from the budget to the Unitary Plan.

Take the example of Takanini, where thousands of new homes are planned in a flat, peaty former rural area. The council is building a new stormwater channel and planting thousands of native plants to offset the area's vulnerability to flooding, in a \$100 million initiative called the Awakeri

getting a water tank or as small as using the half flush instead of the full. When performed on a large scale, they could help defer our need for a new multibillion-dollar water source, or markedly improve the quality of our urban streams and beaches.

No matter their opinion on Auckland's future water needs, everyone agrees we need widespread behaviour change when it comes to water. Te Rangi says we should make better use of the abundant supply of it that already falls in Auckland. "The opportunity that we must take, not only in Tāmaki but across Aotearoa, is to do something about harvesting water that occurs naturally," he says.

Allen says the most useful thing anyone can do is be conscious of how their actions are affecting Auckland's water network. "Water is incredibly important for us. We are mostly made up of water. We are connected by water. So water needs to become part of our everyday thinking," he says.

Hulse says Auckland is at a point now where it needs drastic collective action to curb human impact on our waterways. "The sea is so forgiving. I was lying on my back in the water at Matheson Bay and it struck me that the sea just feeds and forgives and absorbs. But we're starting to see our physical presence in the ocean now. We don't see a lot of that in Auckland, but we're at a crossroads."

The council's water strategy is in essence an effort to choose Auckland's direction at that crossroads, to point towards a future where water is used sustainably and treated with respect. Hulse points to the citywide water conservation efforts that took place during Auckland's 1994 water shortage as evidence that transformational change is possible.

"It's no good looking out at the glistening waters of the Waitematā. You need to ask, 'What's going on? What am I doing to that water? What's my position in this as an individual? What am I doing to keep that for future generations?'" she says. "Everyone needs to contribute to a collective response. We're going backwards unless we make change right now."

YOU CAN HAVE YOUR SAY ON THE 'OUR WATER FUTURE' DISCUSSION DOCUMENT UNTIL 19 APRIL. THERE WILL ALSO BE EVENTS HELD AROUND THE REGION. FOR MORE INFORMATION, VISIT AKHAVEYOURSAY.NZ

WHAT'S ON?

VISIT OURAUCKLAND.NZ/EVENTS FOR MORE INFORMATION ABOUT THESE EVENTS AND HUNDREDS MORE, AND TO SIGN UP FOR OUR WEEKLY E-NEWS



WIN! VISIT
OURAUCKLAND.
NZ/WIN BY
8 MAR, NOON

AUCKLAND ARTS FESTIVAL 7-24 MAR Prices vary

Aotearoa's biggest celebration of arts and culture returns to Auckland with over 40 exciting theatre, dance, music and visual arts events from New Zealand and around the world. Animation and live performance meet the music of Mozart in *The Magic Flute*; physical theatre transforms Shakespeare in *The Dreamer*; the end of the world is celebrated through dance and music in *Grand Finale*; a hair-raising circus tests the limits of mind, body and soul in *Backbone*; and some of our finest singers share their aroha of te reo Māori in *Tōku Reo Waiata*. *Region wide*



**PERPETUAL GUARDIAN
SCULPTURE ON
THE GULF**
**1-24 MAR,
8AM-5PM DAILY**
Adult \$10, child free

Experience 26 new sculptures by New Zealand artists along a stunning 2km coastal walkway and sculpture trail.
*Matiatia Headland,
Waiheke Island*




ASB POLYFEST 13-16 MAR, WED-SAT 7AM-5PM \$5, child 5 & under free

See more than 12,000 Auckland secondary school students performing on six cultural stages – Māori, Cook Islands, Niue, Tonga, Samoa and the Diversity stage. There will also be speech competitions, arts and crafts, and food stalls.
Manukau Sports Bowl



ZOO OPEN LATES SAT 9, THU 14, THU 21 & THU 28 MAR, 4PM-8PM \$12

Make the most of the summer nights at Auckland Zoo. Visit after work with mates, make it a date night or enjoy an evening stroll through the beautiful grounds.
*Auckland Zoo,
Western Springs*



PORTS OF AUCKLAND ROUND THE BAYS SUN 3 MAR, 9.30AM Adult \$40, child \$25, under 5s \$5, family \$100

This iconic 8.4km Auckland waterfront walk or run is set to be the biggest and best ever, packed full of fun and entertainment. Entry fees support Sea Cleaners Trust, Diabetes NZ Auckland and Big Buddy Mentoring Trust.
Quay St to St Heliers Bay





TITIRANGI FESTIVAL OF MUSIC
28-30 MAR Prices vary – some free events

This year's programme is packed with community-flavoured free events as well as ticketed events including international guests Cha Wa (pictured) from New Orleans, and Kiwi icon Bic Runga. *Titirangi Village*



ECOWEST FESTIVAL
16 MAR - 14 APR
FREE

This festival offers more than 120 events, including bush walks, film screenings, bike rides, hands-on workshops, food and craft markets, and much more. *West Auckland*



JAPAN DAY
SUN 3 MAR,
10AM-6PM
FREE

Come along to New Zealand's biggest annual Japanese festival. There will be food stalls, cultural performances, kids' activities, arts and crafts, and special guests from Japan. *Eden Park, Kingsland*

ISLAND STYLE

Strongman and strongwoman contests will be among the new offerings as the hugely popular Pasifika Festival returns to Western Springs Park on the weekend of 23 and 24 March for its 27th year. Event director Torise Flay says the inaugural Pasifika Strong competitions "will feature our own Pacific male and female athletes" in a series of strength challenges.

Other innovations to give festival-goers an insight into the lives of their Polynesian, Melanesian and Micronesian neighbours include more opportunities to participate with each of the unique village experiences, with fale activities programmed throughout the weekend.

As usual, Pasifika will once again bring together the sights, sounds and smells of the Cook Islands, Fiji, Niue, Aotearoa, Hawaii, Kiribati, Samoa, Tahiti, Tuvalu, Tonga and Tokelau. There will be about 200 local and international performance groups; more than 200 food and craft stalls (including artisans who travel from the islands to take part); and around 60,000 visitors over the two days.



Entry to Pasifika is free. Here are Torise Flay's top tips to ensure a great Pasifika experience:

- Pasifika's continued popularity means you could be battling the crowds for parking, so make the most of public or active transport
- There is much to see at the festival, so allow a whole day to enjoy the Pacific cuisine and entertainment on offer
- Check out the Pasifika website to plan your day
- Wear comfortable shoes and be sun smart.

PASIFIKA FESTIVAL AT WESTERN SPRINGS PARK RUNS FROM 9AM TO 7PM ON SATURDAY 23 MARCH (VILLAGES SHUT AT 5PM; PERFORMANCES ON THE FESTIVAL STAGE CONTINUE UNTIL 7PM) AND FROM 10AM TO 4PM ON SUNDAY 24 MARCH.

WHAT'S ON?

VISIT OURAUCKLAND.NZ/EVENTS FOR MORE INFORMATION ABOUT THESE EVENTS AND HUNDREDS MORE, AND TO SIGN UP FOR OUR WEEKLY E-NEWS



PASIFIKA FESTIVAL
23 & 24 MAR, SAT 9AM-7PM, SUN 10AM-4PM **FREE**

This family-friendly event celebrates our Pacific Island communities and their diverse cultures through food, arts and crafts, and traditional and contemporary music and performances. There are 10 villages – Cook Islands, Fiji, Niue, Aotearoa, Hawaii, Tokelau, Samoa, Tahiti, Tuvalu and Tonga – each with its own performance stage and market stalls selling crafts and signature dishes. *Western Springs Park*

**GUERRILLA GIRLS:
REINVENTING THE 'F'
WORD – FEMINISM!**
8 MAR - 13 OCT,
10AM-5PM DAILY
FREE

The Guerrilla Girls are an anonymous collective of feminist activist artists. This exhibition explores how they employ bold, fun and provocative poster art to criticise ongoing biases in art and society.
*Auckland Art Gallery
Toi o Tāmaki,
CBD*



WIN! VISIT
OURAUCKLAND.NZ
WIN BY
8 MAR, NOON

**VODAFONE
WARRIORS V
CANTERBURY BULLDOGS**
SAT 16 MAR,
5PM KICK-OFF
Adult from \$15, child from
\$10, family from \$40 (+fees)

Be a part of history as the Vodafone Warriors celebrate their 25th season, taking on the Canterbury Bulldogs in their first home game of the season. Throwing it all the way back to 1995, there will be '90s-themed fun and entertainment for the whole family. *Mt Smart Stadium, Penrose*



**KOOZA
CIRQUE DU SOLEIL**
UNTIL 17 MAR
From \$69 (+fees)

KOOZA combines acrobatic performance and the art of clowning, while exploring fear, identity, recognition and power.
*Alexandra Park,
Greenlane*

Winner winner



Right now, the judges of the *Metro* Peugeot Restaurant of the Year Awards 2019 are eating their way around Auckland, deciding which restaurants will make this year's Top 50. Some are also eating around the country, picking New Zealand's best regional restaurants. And a mystery international guest judge will soon arrive to choose the Supreme Winner.

Pick up the May/June issue of *Metro*, on sale April 30, to find out which restaurants cut the mustard. Every magazine comes with a pocket-sized Top 50 booklet.

—
Vote now for the 2019 Peugeot People's Choice Award at www.metromag.co.nz
Voting closes on March 31, 2019

Metro

 **PEUGEOT**

**Restaurant
Of The Year
Awards
2019**

antipodes
WATER COMPANY LIMITED

GUYLIAN
The World's Favourite
Belgian Chocolates


Estrella
Limon

MÖVENPICK
THE ART OF SWISS ICE CREAM

WHAT'S ON?

VISIT OURAUCKLAND.NZ/EVENTS FOR INFORMATION ABOUT THESE EVENTS AND MORE

OPERA TAKES THE OSCARS
SAT 2 MAR, 7.30PM
Adult \$40, senior \$35,
student \$15 (+fees)

A night of musical winners, capturing golden moments of the silver screen.
Raye Freedman Theatre, Epsom

AUCKLAND BRIT & EURO CLASSIC CAR SHOW
SUN 3 MAR, 10AM-3PM
FREE

Classic cars, food trucks, kids' activities and more.
Lloyd Elsmore Park, Pakuranga



CHILDREN'S DAY AT STARDOME
SUN 3 MAR, 10AM-4PM
\$2

A fun family day out exploring the Universe.
Stardome Observatory & Planetarium, One Tree Hill Domain

FIH PRO LEAGUE – VANTAGE BLACK STICKS
FRI 8 MAR, 5PM (V SPAIN MEN & USA WOMEN) & SUN 10 MAR, 2.30PM (V ARGENTINA MEN & WOMEN)
Adult \$42, junior \$14, senior/student \$28, family \$92 (+fees)

See world-class hockey, along with a food festival, music and family activities.
North Harbour Hockey Stadium, Albany



HEART OF TE ATATŪ SOUTH FESTIVAL
SAT 9 MAR, 10AM-2PM
FREE

A fun-filled day with rides, market stalls, food trucks and music.
Te Atatū South Community Centre

WESTHAVEN MARINA DAY
SUN 10 MAR, 10AM-2PM
FREE

Sailing, paddling and fishing experiences, boat tours, music and food stalls.
Westhaven Marina



ASTROMAN
16 MAR - 6 APR
\$30-\$67 (+fees)

A fun-filled Kiwiana comedy of family, friendship and courage.
Q Theatre, CBD

22ND LAKESIDE MULTICULTURAL FESTIVAL
SUN 17 MAR, 1PM-5PM
FREE

Music, dancing and singing from around the world.
The PumpHouse, Takapuna

ST PATRICK'S FESTIVAL
SUN 17 MAR, NOON-3PM
FREE

Join the parade from noon, followed by a festival with Irish music and dancing.
Queen St, CBD

SIR GRAEME DOUGLAS INTERNATIONAL TRACK CHALLENGE
THU 21 MAR, 5.30PM-8.30PM
Adult \$20, student \$10,
child \$5, family \$40

Witness the skill of some of the world's best athletes at this family-friendly event.
Douglas Track & Field, Trusts Arena, Henderson



COME FLY A KITE
SUN 24 MAR, 11AM-3PM
FREE

Kite-flying for the whole family with workshops, prizes and food stalls.
Harbourview-Orangihina Park, Te Atatū Peninsula



FAMILY FUN PICNIC – NEIGHBOURS DAY
SUN 24 MAR, 4PM-6PM
FREE

A preschool play zone, bouncy castle, face painting, live music and food stalls.
Windsor Reserve, Devonport

EYE ON NATURE FAMILY DAY
SAT 30 MAR, 11AM-5PM
FREE

An environmental educational event offering fun games and activities for all ages.
Auckland Botanic Gardens, Manurewa

KAURI KARNIVAL
SUN 31 MAR, 11AM-3PM
FREE

Celebrate the kauri tree with live music, children's activities and food stalls.
Parrs Park, Glen Eden



HARCOURTS COOPER & CO. SHORE TO SHORE
SUN 31 MAR, 9AM
GA \$25, school \$10

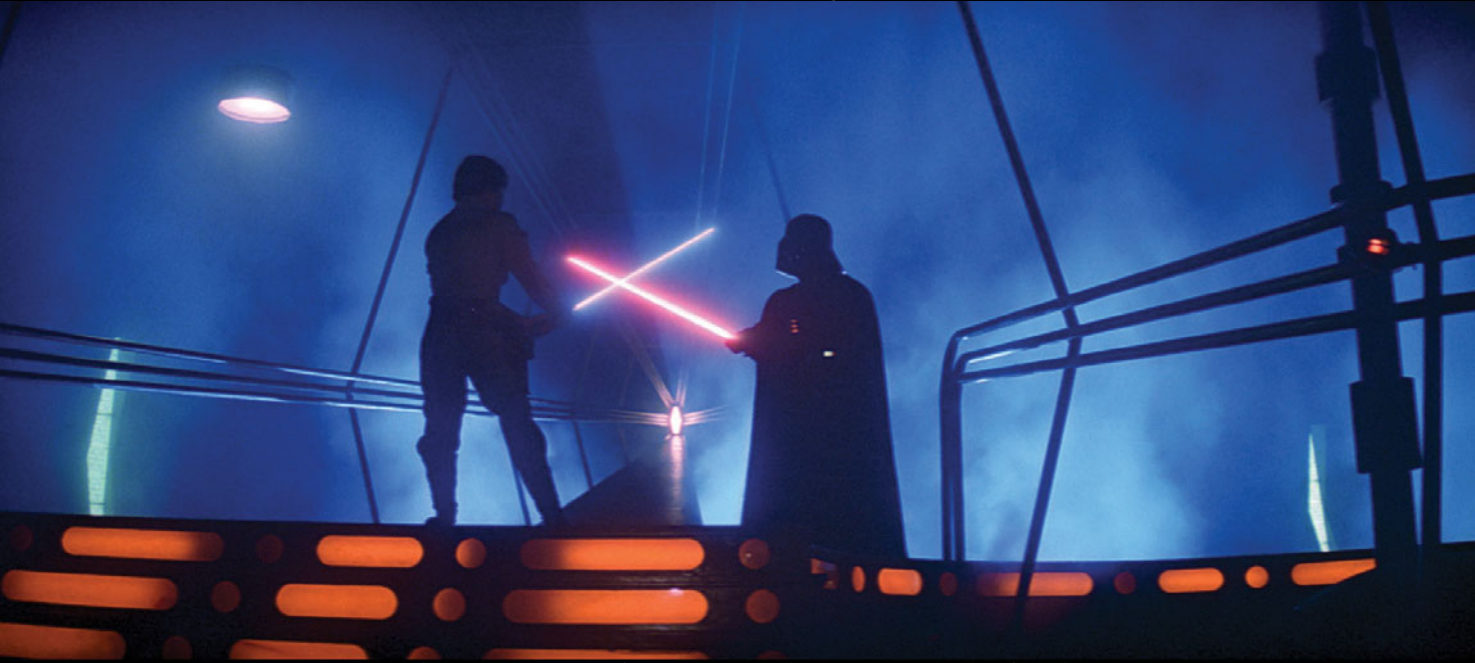
A 5.9km fun run and walk with prizes and entertainment.
Takapuna Grammar to Milford Reserve



AUCKLAND BRIT & EURO CLASSIC CAR SHOW: CAM LEGGETT

STAR WARS™

IN CONCERT



FILM WITH LIVE ORCHESTRA

A NEW HOPE

SAT, 4 MAY

THE EMPIRE STRIKES BACK

SUN, 5 MAY

SPARK ARENA, AUCKLAND

PRESENTED BY THE

NEW ZEALAND SYMPHONY ORCHESTRA

Music by John Williams

Book now at

[TICKETMASTER.CO.NZ](https://www.ticketmaster.co.nz)



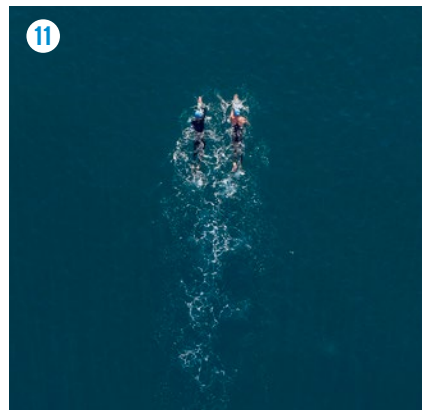
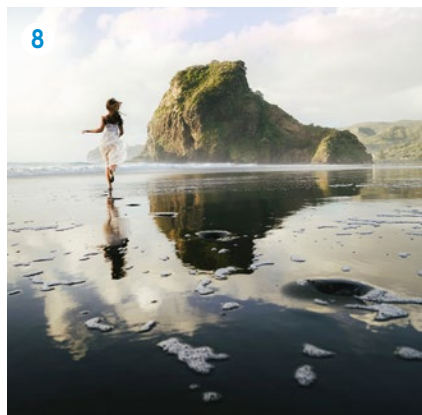
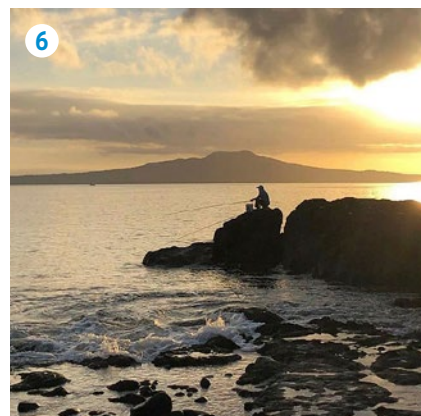
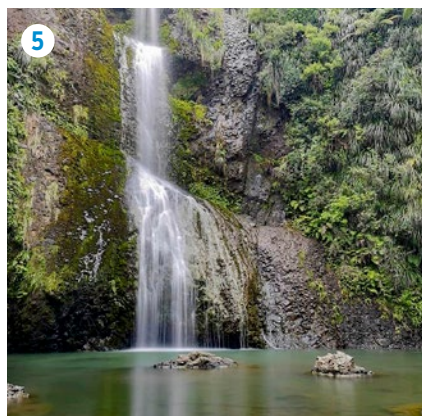
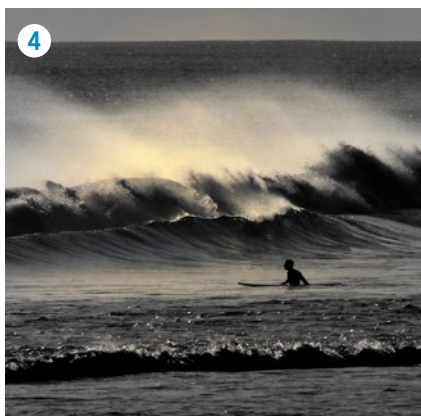
© 2018 & TM LUCASFILM LTD. ALL RIGHTS RESERVED © DISNEY. PRESENTATION LICENSED BY DISNEY CONCERTS IN ASSOCIATION WITH 20TH CENTURY FOX, LUCASFILM LTD. AND WARNER/CHAPPELL MUSIC



SEE HERE NOW

SUMMER IS THE BEST TIME TO BE AROUND THE WATER. SO WE SEARCHED INSTAGRAM FOR GREAT SHOTS OF AUCKLAND'S FAVOURITE WATERY SPOTS. HERE ARE 11 WE LOVE.

TAG #OURAKL ON YOUR AUCKLAND INSTAGRAM PICS AND WE'LL SHARE THE BEST ON OUR PAGE @AKLCOUNCIL



1. Potters Park @judylouiseaalbers
2. Goat Island @kola_brent
3. Huia @aratakivisitorcentre
4. Muriwai @kathrynnobbsphotography
5. Kitekite Falls @dice_vision_6
6. Milford @lisa_whyte_nz
7. Narrow Neck @kathrynnobbsphotography
8. Piha @matt_steel
9. Lake Wainamu @catnduck
10. Patumahoe @solar787
11. Takapuna @petraleary

Protect healthy kauri and prevent kauri dieback disease from spreading by scrubbing and spraying shoes and wheels and staying on designated open tracks. See aucklandcouncil.govt.nz/protectkauri

Tāmaki Path



**Go for a fish.
Walk the dog.
Spot native birds.
Get some fresh air.
Explore the coast.**

There are 99 reasons to hit
Auckland Paths.

Find your path at AKLpaths.co.nz

Downer



Auckland
Council
• Kaunihera o Tāmaki Makaurau





Your street is right up our alley.

Wherever you live in Auckland, you're in an area that's very close to our hearts. We love this place; we're involved in the local schools and community activities. So when it comes to selling your property, we have the enthusiasm and local knowledge to help you achieve a successful result. Across our

team we know many of the buyers looking in the area right now. Little wonder that Barfoot & Thompson makes one in three of the property sales across Auckland every day. When you're ready to talk about selling, just call your local branch – we're experts in the area.

Barfoot & Thompson

Licensed REAA 2008

MREINZ