VICTORIA UNIVERSITY OF WELLINGTON
TE HERENGA WAKA

ZERO CARBON BY 2030*

wgtn.ac.nz/sustainability

2024

SUSTAINABILITY REPORT

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The designs used in this report, designed by David Hakaraia, draw inspiration from Māui-tikitiki-a-Taranga, embodying the spirit of innovation, resilience, and determination. Additionally, the manawa aho (heart line) is woven into the design, representing the pulse of knowledge, connection, and the intergenerational transmission of wisdom. These elements collectively speak to the remarkable feats of courage, learning, and perseverance that define the pursuit of education and personal growth.

FROM THE DIRECTOR

I orea te tuatara ka puta ki waho—a problem is solved by continuing to find solutions.

Remaining optimistic can be challenging when you work in sustainability, or even just pay attention to the news. Divisions in society seem to be growing, the planet keeps getting hotter, and Papatūānuku continues to suffer, while we hear from politicians that growing the economy will fix everything. I'm not surprised that eco-anxiety is one the biggest areas of concern for our students in a recent wellbeing survey. I know our environmental crises are huge, but to manage my own mental health I try not to read too much about just how bad it is. Instead, I spend my time working on making things better and, specifically, how the University can make things better. In 2024, we developed a new Strategic Plan for the University. Our new tagline is *Te Herenga Waka, He Herenga Tāngata, He Herenga Kaupapa—the university for a better world.* I'm pleased to be working for an institution that, in principle at least, shares my purpose. It provides a platform for making a significant impact.

After 2023, a year of cost cutting and uncertainty across the University, 2024 felt much more positive and we made some good progress on the sustainability outcomes we are targeting. This report covers a lot of the mahi we have been doing, but there are two stand-out accomplishments for 2024.

First, we launched the Bachelor of Environment and Society (BEnvSoc). It's a three-year degree that prepares students to address environmental issues from a range of viewpoints. With 12 majors drawn from five different faculties, it is a truly interdisciplinary approach that reflects the cross-sector collaboration needed to tackle our environmental challenges. In recent years, the number of sustainability-related majors and individual courses offered across the University has grown significantly, particularly in humanities and social sciences and commerce. Now we can provide a dedicated degree that brings all that curriculum content together. The world needs graduates with these skills and students are clearly interested in sustainability issues, so I am confident the BEnvSoc will make a positive impact and help develop the next generation of change-makers.

Second, the opening of Ngā Mokopuna, a redevelopment of our marae precinct, was a major milestone. It is a flagship project that demonstrates the University's commitment to mātauranga Māori and sustainability. The building aligns Māori values with the performance-based construction standard of the Living Building Challenge (LBC)—the toughest sustainable building certification in the world. Ngā Mokopuna combines technical advances such as the onsite treatment of wastewater, large-scale timber construction, and generating more power than it uses, with very human-focused design that considers equity in the construction supply chain and connecting its occupants to nature. I am fortunate to have my office in Ngā Mokopuna—it feels peaceful, welcoming, and inspiring. We want everyone in the University community to get the opportunity to experience the building to find hope that a sustainable future is possible—Ngā Mokopuna is proof.

While there is an endless supply of depressing news from around the globe, I do take solace in the fact that we can respond to these challenges and that the University is part of the solution.

Nāku noa, nā

Andrew Wilks (he/him)
Manutaki, Toitūroa—Director, Sustainability

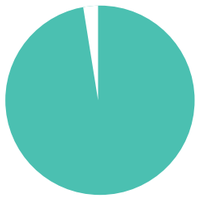
AT A GLANCE

Ranked 244th out of the world's **18,000** universities*

1 of 22 ★★★★★+
of the world's 'Five Stars Plus' rated universities, setting the gold standard for higher education

In the world's top 1% for 15 subjects*
Development Studies, Earth and Marine Sciences, English Language and Literature, Geography, Geology, History, Hospitality and Leisure Management, Law, Library and Information Management, Linguistics, Performing Arts, Politics and International Studies, Psychology, Sociology, Theology, Divinity & Religious Studies

$26M
invested in scholarships by the University



97%
of teachers were assessed by students as 'excellent', 'very good', or 'good'

Total revenue **$539M**

Total expenditure **$534M**

$99M
external research income

1,802 Māori EFTs

1,014 Pasifika EFTs

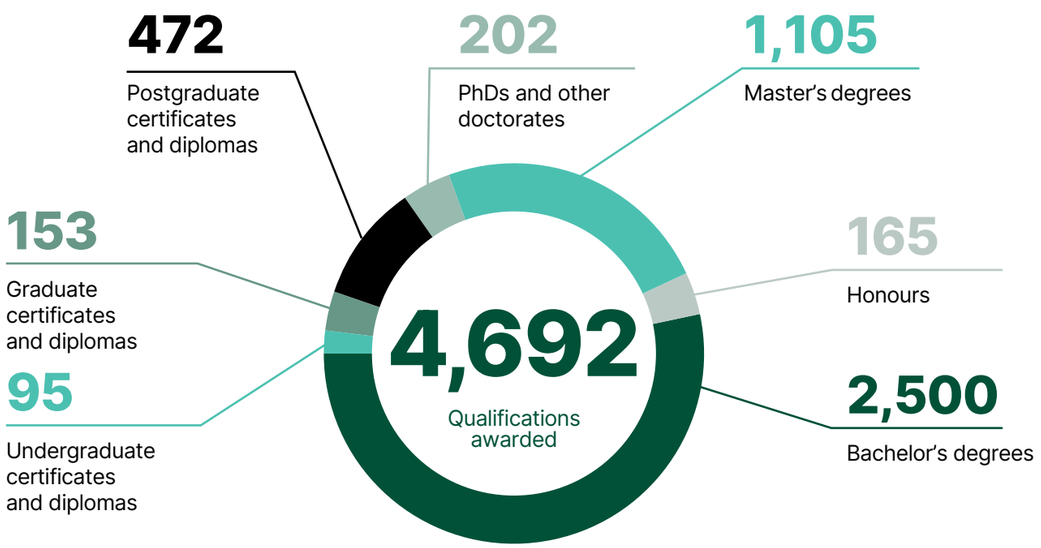
Equivalent full-time students

14,250** government funded

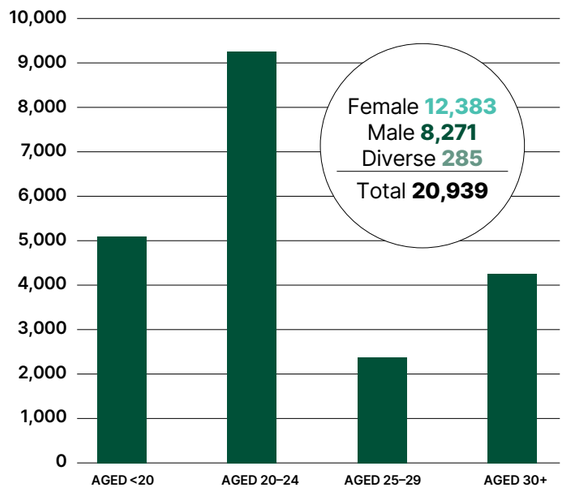
1,630 full fee

*QS rankings: www.topuniversities.com/universities/victoria-university-wellington#wur

**14,240 SAC funded and 10 STAR funded



Student distribution[1]



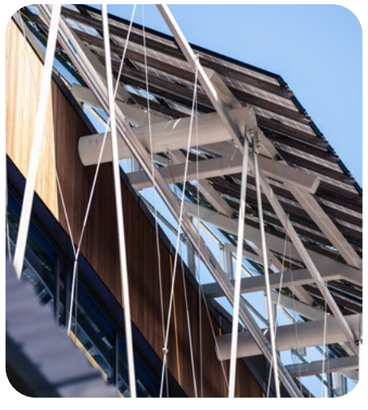
2,202
staff (full-time equivalent)

1,018
teaching and research staff

1 Student distribution by headcount

2024 BY THE NUMBERS

35
SCHOLARSHIPS OFFERED IN SUSTAINABILITY TOPICS
(worth $336,500, up from $315,000 in 2023)



13,072
STUDENT VOLUNTEER HOURS
(up from 10,476 in 2023)

617
RESEARCH PUBLICATIONS IN SUSTAINABILITY
(up from 573 in 2023)

38
SUSTAINABILITY-FOCUSED MEDIA RELEASES
(resulting in 81 media stories, up from 64 in 2023)

11%
MĀORI STUDENTS
(down from 12.4% in 2023)

6.8%
PASIFIKA STUDENTS
(up from 6.7% in 2023)

15,159
TONNES OF GROSS CARBON EMISSIONS
(down 21.1% from 2017 baseline)

386
TONNES OF WASTE TO LANDFILL
(down from 389 in 2023)

8,721
ENROLMENTS IN ENVIRONMENTAL SUSTAINABILITY COURSES
(up from 7,041 in 2023)

167
COURSES OFFERED IN ENVIRONMENTAL SUSTAINABILITY
(up from 149 in 2023)

78%
WOMEN ON SENIOR LEADERSHIP TEAM
(up from 56% in 2023)

3,400
TREES PLANTED
(up from 3,150 in 2023)

LEARNING AND TEACHING

As a future-focused university with our eye firmly on achieving our sustainability goals, we recognise that our students can make the greatest impact. During their time at Te Herenga Waka, they're involved in coursework, extracurricular activities, and leadership programmes that contribute to arming them with knowledge to help lead Aotearoa—and the rest of the world—to a more sustainable future. There is still a lot more mahi to do to ensure as many students as possible across the University are engaging with sustainability issues, and that the quality of that education remains high. We are definitely making good progress.

We're very excited to launch our new BEnvSoc degree, a truly multidisciplinary qualification that brings together existing sustainability-focused courses with new specialty content, and provides students with the practical skills and experiences required to be a sustainability change-maker.

We're exceptionally proud of what our students are already achieving in this space, and what they will be capable of in the future. We are thrilled to share in this report a few of the inspiring stories about the ways in which some current and former students are making a sustainable impact.

Performance indicators	2020	2021	2022	2023	2024
Environmental sustainability-focused course offerings	96	109	121	145	164
Enrolments in environmental sustainability-focused courses	5,509	5,965	5,290	7,041	8,679
Environmental sustainability-focused scholarships (and cumulative value)	12 ($96,000)	10 ($59,500)	13 ($164,654)	40 ($315,000)	35 ($336,500)

NEW QUALIFICATIONS

From 2025, our students will be able to arm themselves with the skills to address complex environmental challenges with Te Herenga Waka's new degree, the Bachelor of Environment and Society (BEnvSoc).

Weaving together new and existing content across five different faculties, the new qualification offers 12 specialised majors that will give students a broad understanding of social and environmental issues while developing expertise in a specific subject.

The degree has a strong mātauranga Māori focus, and leverages Te Herenga Waka's position in the capital city by giving students unparalleled access to government agencies and environmental organisations so they can connect with decision makers.

Dr Brendon Blue, the programme director of BEnvSoc, says the new degree bridges the gap between environmental knowledge and social action. "Students will be prepared to change their world for the better. The degree aims to produce graduates who can work across multiple perspectives on environmental issues," he says. "We're providing our students with practical skills and experiences needed by a range of organisations working on social and environmental issues. By including hands-on collaborative projects and fieldwork around the Wellington region, our graduates will be well-prepared for the challenges ahead."

We also launched a Kaitiakitanga major as part of the Bachelor of Arts. It gives students an in-depth understanding of how Māori manage their environmental resources such as land, lakes, forests, and fisheries, while learning the basics of Māori language. They examine the ownership of resources and why Māori do, and don't, own some of them.

While not a new qualification, the core requirements of the Bachelor of Commerce (BCom) have had a significant refresh and now revolve around first-, second-, and third-year courses that examine the grand challenges in business, government, and society. The refreshed core now better supports the BCom's graduate attributes, which include 'critically evaluating diverse multicultural and international viewpoints to enhance the effectiveness, accountability, and sustainability of business and government' as well as 'making a positive societal impact in Aotearoa New Zealand, the Pacific, and globally'.

STUDENTS

A Bachelor of Design Innovation student is targeting sustainability within the fashion industry by giving new life to textile waste. Ella Fidler's project *Scrap Yarn* was awarded the Excellence from a Rising Talent prize in the 2024 Mindful Fashion Circular Design Awards. Ella, who is majoring in Fashion Design Technology, says she wanted to give new life to the estimated 15 percent of fabric wasted in the pattern-cutting process. Her competition entry was inspired by what she learnt during the Design for Sustainability course, in which students were challenged to identify a waste stream within the University and come up with a design solution. "I designed a pair of gloves made from the fabric scraps and waste caused by fashion students," Ella explains. "I found this course very helpful for learning more about sustainability, not only in fashion but in other disciplines too."

Scrap Yarn *by Ella Fidler.*
Photo by Apela Bell.
Model: Karen Valerie from 62 Models.

A Victoria graduate and Rhodes Scholar investigating the health impacts of climate change credits her time at Te Herenga Waka for being able to examine the topic with an intersectional lens. Isabella Lenihan-Ikin undertook a conjoint Bachelor of Science and Bachelor of Laws, and then completed an Honours year in Geography at Te Herenga Waka. Her current research is focused on the junction between the scientific and social ways climate change is affecting people's health. "It was that combination of Science and Law that enabled me to see things from an intersectional and intersectoral lens, which I think is incredibly important when thinking about an issue like climate change," she says. Isabella—who, among other advocacy roles at Victoria, was the student representative on the University's Council—was awarded the prestigious scholarship in 2019, which enabled her to undertake study at the University of Oxford. She has completed a Master of Science in International Health and Tropical Medicine, and is currently studying towards a doctorate in clinical medicine. "[Te Herenga Waka] was a really formative time in developing my sense of justice, my outlook on the world, and the kinds of issues that I want to contribute to. Most importantly, I think it developed the way I want to work alongside other people and help organise and build community to try and solve some of the pressing issues that we face."

Two Te Herenga Waka students have been awarded highly regarded marine conservation scholarships to support their research in marine biology. The scholarships, awarded by Women Divers Hall of Fame, recognise and support scuba divers who have demonstrated outstanding contributions to the exploration, understanding, safety, and enjoyment of marine environments. Gabriela Wood, a PhD student whose research looks at how nutrients and temperature changes affect marine sponges, says it is really validating to be selected as a recipient from a large field of international applicants. She was awarded the Rachel Morrison Memorial Graduate Marine Conservation Scholarship, which will go towards assessing how sponges around Wellington's coast respond to stressors such as elevated temperatures. Fellow PhD student Miriam Pierotti was awarded the Richard Laurence Parish Foundation Scholarship in Coral Conservation. Miriam focuses on the ecology and resilience of black coral in the face of environmental stressors. "Thanks to the scholarship, I can broaden the scope of my research. The funding will go towards additional expeditions to remote places. I will integrate monitoring surveys in these remote areas with genetic analysis, furthering our understanding of black coral ecology and biology," Miriam says.

SUSTAINABILITY PROJECTS RECEIVE FUNDING BOOST

A new fund using revenue from the University's carbon levy is giving a financial boost to a broad range of sustainability-focused projects. Three projects have been announced as the inaugural winners of Te Parahia Contestable Fund, which was established to help Te Herenga Waka achieve its target sustainability outcomes. Each project receives a share of $80,000.

One project will investigate how well teaching about sustainability and/or mātauranga Māori is done across the curriculum; another will fund scholarships for current students supporting existing sustainability initiatives and creating new opportunities for the University community; and the third project will research the cultural and ecological history of the campus, and explore options for how we might honour this history and support the revitalisation of mātauranga Māori, ecosystems, and relationships.

The aim of the fund is to harness the innovation and expertise of Te Herenga Waka's community in addressing environmental challenges on both a local and global scale. This was the first time we had called for proposals for the fund, so we didn't know what sort of response we'd get. We were blown away by the huge range of high-quality proposals we received from across the University.

RESEARCH

At Te Herenga Waka, we take seriously our role as a university to help solve the world's big problems—and the biggest one of all is ensuring we have an environment that can sustain humanity. In the face of some powerful global leaders determined to dial back much of the progress that has been made towards environmental sustainability, it's crucial that we keep researching and sharing our findings. It's also important to keep in mind how intertwined environmental sustainability is with the broader aspects of social, cultural, and financial sustainability, and that all our academic disciplines contribute to a better future. The New Zealand Government's decision to cut funding for humanities and social sciences research from the Marsden Fund will make this more challenging, but we will continue to deliver valuable sustainability research for our communities.

Through Scopus (an international research publication database), we are able to measure how much of the University's published research contributes to the United Nations' Sustainable Development Goals (SDGs). In 2024, our published research was up by nearly 8 percent to 617 publications, with 83 percent of our academic departments producing SDG-related publications. This shows the breadth of sustainability expertise at Te Herenga Waka.

It's a tough research funding environment at the moment and we are still heavily dependent on government funding. The number of externally funded research contracts for environmental sustainability was significantly lower than normal in 2024, and the cumulative value of those contracts was dominated by one $13.6 million contract for our Antarctic Research Centre.

Looking beyond the data, it's much harder to measure the way our work on sustainability issues is making an impact. This is why we keep supporting our researchers to delve deeper and share their expertise with decision makers and the general public, to help guide both thinking and action in Aotearoa and around the globe.

Performance indicators	2020	2021	2022	2023	2024
Research publications contributing to the United Nations SDGs (as per Scopus at the end of the calendar year)	505	586	506	573	617
Externally funded research contracts about environmental sustainability	47	59	55	54	32
Cumulative value	$31.5m	$62.6m	$32.6m	$7.6m	$21.0m

RESEARCH HIGHLIGHTS

Our academics are leading some groundbreaking research that—while sometimes drawing attention to some worrying developments—makes an important contribution to the bigger picture and to what action needs to be taken.

A study by Dr Julie Deslippe and Master's student Darby Moyle from the School of Biological Sciences has shown that native ferns, sedges, and rushes have completely disappeared in some areas of Tongariro National Park, as invasive heather takes over. The pair also found a decline in the diameter of the once-dominant native red tussock, in response to competition from the heather. "Heather's invasion of our alpine tussock grasslands will likely lead to a loss of plant diversity, turning these native grasslands into low-diversity shrublands," says Darby. "We've seen similar patterns in other countries as invasive plants have made their way into mountainous areas, aided by a warming climate."

Several of the University's student researchers have made meaningful contributions to wetland restoration thanks to a scholarship scheme. Leading conservation group Ducks Unlimited (whose director, Jim Law, is a Te Herenga Waka alumnus) is working to save wetlands through funding, technical support, and education. As part of those efforts, the group sponsors Wetland Care Research Scholarships for postgraduate students to examine novel ways to restore and conserve wetland sites. Since the scholarship programme began in 2018, many students from the Centre for Biodiversity and Restoration Ecology have benefited from this funding. Te Herenga Waka has two scholarship recipients for 2024—Jessica Wagner is researching the most effective way to trap rats, and Pearl Ruston is looking into whether restored wetlands can absorb and retain excess nitrogen.

An investigation into recent abrupt changes in Antarctic sea ice—and what that might mean for the climate and sea-level rise—was among several projects at Te Herenga Waka to receive a financial boost in the 2024 Endeavour Fund round. The sea ice project, led by Professor Nancy Bertler, was awarded $13.6 million and aims to improve models used to forecast changes to the climate and sea levels. Other sustainability-focused projects to receive Endeavour funding included one using AI to identify individual kākā without the need for leg bands, another that's developing an AI model that can predict sea-level rise, and a project investigating how to distinguish individual kiwi based on their call.

Te Herenga Waka's strength in Antarctic and climate research was further exemplified by our important role in an ambitious mission to the West Antarctic Ice Sheet. The SWAIS2C (Sensitivity of the West Antarctic Ice Sheet to 2°C) project saw an international team head to the ice in a quest for crucial geological records that will help forecast future sea-level rise. The project aims to understand what temperature will trigger unavoidable melt of the Ross Ice Shelf and subsequent collapse of the West Antarctic Ice Sheet, which would raise sea levels by as much as five metres and have devastating consequences for all humanity. Drilling (led by Te Herenga Waka) into the sediment core of the ice shelf aims to reveal samples that reach back potentially as far as millions of years, including the last time Earth reached temperatures similar to today's. Victoria's Professor Richard Levy, SWAIS2C co-chief scientist, says with global temperatures reaching record highs, this research is more urgent than ever. "The climate warning signs are only getting louder."

Our researchers are always looking for new ways to collaborate on conservation, and a Te Herenga Waka lecturer is involved in an emerging collective of hapū and iwi representatives from ecosanctuaries across Aotearoa. Dr Billy van Uitregt, a senior lecturer from the School of Geography, Environment and Earth Sciences, is involved in the collective as a Ngaa Rauru representative on the board of ecosanctuary Bushy Park Tarapuruhi, and as a researcher interested in how Indigenous voices, knowledge, and world-views are represented in contemporary environmental and conservation management and policy. "A key benefit I see is opening these ecosanctuaries beyond the classic conservation narrative, exposing people to building a relationship and ethic of care—for these places, for these species," says Dr van Uitregt.

A potentially game-changing method to pump carbon dioxide out of the air has been put to the test by scientists from Te Herenga Waka as part of an international project. Professor Patricia Hunt, from the School of Chemical and Physical Sciences and the MacDiarmid Institute, is working with scientists from the United Kingdom on a new method they believe could see CO_2 extracted from the air and potentially reused in carbon-neutral manufacturing processes. Their research, which was published in prestigious science journal *Nature Energy*, shows that a membrane system can remove CO_2 from the air without the need for a large, external energy source. "This technology could play a part in the huge task of tackling carbon emissions, but more work will be needed to develop and test its application beyond the lab," says Professor Hunt.

COMMENTARY FROM OUR RESEARCHERS

It's important in our role as a research institution that we walk the talk. If we're going to be the changemakers we want—and need—to be, it's vital that our work isn't happening behind closed doors. We need to make sure the public understands what we're doing, too. There's an art to communicating well, and our researchers are adept at sharing what can sometimes be quite complex ideas in an accessible way. Many of them contributed thoughtful and inspiring sustainability-themed opinion pieces in 2024.

Finding a balance between solving the housing crisis without compromising the impact on natural habitats and biodoversity was the topic of a piece on *The Conversation* website by two Te Herenga Waka academics. Christopher Woolley, postdoctoral ecology researcher, and Maibritt Pedersen Zari, senior lecturer in Sustainable Architecture, along with colleagues from the University of Otago, argued that incorporating nature within built environments wasn't just possible, it was essential. "Urban nature helps buffer the devastating impacts of increasingly frequent and serious climate-related events in cities, such as flooding and heat waves," they wrote. "By embracing nature-based solutions, we can lessen the impact of these events while enjoying biodiverse surroundings (which are also beneficial to human wellbeing)."

Agrivoltaics—using agricultural land for both renewable energy generation and farming—is a major economic opportunity for Aotearoa, according to an article written for *The Conversation* by Law Professor Catherine Iorns and Professor Alan Brent, the Chair in Sustainable Energy Solutions. They wrote that with more than 40 solar farms in various stages of development in Aotearoa, the challenge would be integrating them in a way that not only minimises their impact on farm productivity but also brings economic benefits. "The major benefit of agrivoltaics is the microclimate created under the solar arrays, with cooler temperatures during warm days and warmer temperatures at night. This results in less heat stress and less frost damage for crops," they wrote. "Soils also retain more moisture, which means certain crops grow better, even with more shading. Pastoral production has seen the greatest benefits globally because animals are better protected from the elements, need less water, and can access pasture in dry conditions."

An associate professor in Te Herenga Waka's School of Education has written about the role of the youth voice in top-level decisions regarding the climate emergency, saying school climate strikes may be having a positive influence on attitudes. Jenny Ritchie, along with colleagues from the University of Queenland, wrote about their research that has shown adults generally support children being heard in government decisions about the environment. "We found a majority of surveyed adults in both New Zealand and Australia support 11–14 year olds and 15–18 year olds having opportunities to influence government decisions on the environment. … Our finding of a high degree of public support for young people being heard aligns with lobbying to lower the voting age to 16 in both countries," they wrote. "Children and young people deserve to have their concerns heard and influence policies that will greatly impact their future lives—well beyond those of current politicians."

Image: *WellingtonNZ*

As cities across Aotearoa build more cycle lanes in response to changing transportation habits, the move is not without its detractors: even the transport minister has claimed New Zealanders are “sick and tired of the amount of money going into cycleways”. However, a study conducted by Te Herenga Waka following the last election has shown the issue is not as unpopular as claimed. Sam Crawley, a teaching fellow in the School of History, Philosophy, Political Science and International Relations, along with researcher Matthew Gibbons from the University’s Political Science programme, wrote in *The Conversation* that New Zealanders are evenly split on the issue. Compared to support for spending on roads and public transport, New Zealanders are fairly evenly divided on the value of bike lanes, they wrote. “These figures don’t support a blanket statement that New Zealanders in general are in favour of funding cuts to cycleways. As the election survey data shows, the issue is divisive, but many New Zealanders do want more bike lanes.”

The crucial role of native plants in restoring ecologically important wetlands and freshwater quality has been highlighted in research by Te Herenga Waka. Professor Rewi Newnham, from the School of Geography, Environment and Earth Sciences, wrote in *The Conversation* that the resilient and opportunistic species raupō (bulrush) could be a vital part of the restoration of wetland habitats and freshwater. “Thriving on material washed from disturbed catchments, raupō acted as an ecological buffer, intercepting nutrients and sediments, and reducing potentially harmful effects on freshwater ecosystems,” he wrote. “From the mid-twentieth century, as water quality began to deteriorate, raupō populations—and any buffering effects—were generally in decline as wetlands and lake shallows were drained for grazing land and better access to water supply.” He said history shows raupō has an important role in restoring the health of our freshwater ecosystems. “Not only can it soak up nutrients and contaminants, but as both a native and taonga species it can assist remediation solutions that are ecologically and culturally supportive and sustainable.”

ENGAGEMENT

Among the things jostling for our community's attention, time, and money, we somehow need to keep sustainability front of mind too. But awareness only goes so far: crucially, our people also need to be motivated to do something about it. We know that the way to generate a greater understanding of sustainability issues—and to spur people into taking positive action—is to engage our staff, students, and wider community in activities and partnerships here and further afield. That is both more important and more challenging in an age where misinformation and disinformation are so prevalent, and the need to care for our environment has become so politicised.

Fortunately, most of our staff and students and many of our wider community value sustainability. We are pleased to see continued growth in the number of volunteer hours logged by Te Herenga Waka students through the Wellington Plus programme, up by nearly 25 percent from 2023. The number of staff and student teams competing in our Green Impact programme increased fivefold too, which validates the thought and hard work that goes into facilitating such programmes. While student and staff participation is increasing, we still have a long way to go to engage all our students, as currently just under half of them are becoming more engaged in sustainability issues while studying with us.

Beyond the University itself, we continue to try to engage with our wider community on sustainability issues. Media coverage is one way of doing that, and the opening of Ngā Mokopuna was certainly well covered. Although less public, the relationship with our community of donors is vitally important, particularly when government funding is tight. Donations help us deliver a range of sustainability research and scholarships.

Performance indicators	2020	2021	2022	2023	2024
Students who think they have become more engaged with sustainability issues while enrolled (%)	46	44	42	45	42
Student volunteer hours (Wellington Plus)	9,290	9,563	9,124	10,476	13,072
Staff and student teams that completed the Green Impact programme	49	28	45	14	70
Sustainability-focused media releases Number of resulting stories	45 148	30 38	48 42	43 64	38 81
Philanthropic donations to our sustainability work	$1.7 million	$250,000	$250,000	$2.6 million	$732,000

Much of our research involves collaboration with community partners and increasingly our students are building off-campus relationships through internships and volunteer roles that support sustainability outcomes. We also support many sustainability initiatives as an institution, where we work closely with community partners. Following are some of the highlights from 2024.

Te Herenga Waka announced its nominees for the prestigious international sustainability award, the Earthshot Prize. We are proud to be Aotearoa's only official nominator for this esteemed prize, which is awarded by the Royal Foundation of the Prince and Princess of Wales. The prize acknowledges projects that celebrate human ingenuity, drive change, and inspire collective action to address the world's environmental challenges.

The University's 2024 nominees were:

- Neocrete, which re-engineers concrete to make it regenerative, resilient, and carbon neutral
- UsedFULLY, which creates high-value, high-performing products from unwanted textiles for roading, construction, and other industries
- Cetogenix, which diverts global organic waste into high-value products that mitigate climate change, defossilise global supply chains, and eliminate the risk of environmental pollution
- Hot Lime Labs, which produces clean and sustainable CO_2—a key plant nutrient used in hydroponic greenhouses—from forestry and greenhouse crop waste
- the Capital Kiwi Project, which is on a mission to restore a large-scale population of wild kiwi to the hills of Wellington
- Zincovery, which uses hydrogen-based furnace technology to produce 100 percent recycled and high-purity zinc metal, while reducing emissions by up to 95 percent compared to existing methods.

One of our favourite activities each year, which brings together people from all parts of Te Herenga Waka's wonderful community, is the Growing our Future tree-planting event. The weather was stunning for the 2024 sessions, which helped us get 2,400 native saplings into the ground. Each day, about 65 volunteers armed with shovels and hi-vis vests swarmed the hillside in Ōhāriu, where the University has leased 11 hectares of land from Wellington City Council (WCC) for 33 years. Growing our Future is a collaboration between the University and the WCC that aims to create an uninterrupted series of reserves from Porirua to the southern coastline. More than 15,000 trees have been planted by volunteers and contractors since the initiative was launched five years ago. "It was great to see our staff and students branching out, instead of logging in. I particularly enjoyed hearing our budding ecology researchers sharing their knowledge and helping our international students take root as part of Te Herenga Waka whānau," says the University's provost, Professor Bryony James. "I enjoyed it a lot—I'd been pining for a day away from the city."

Te Herenga Waka's leadership in sustainability was also recognised with Growing our Future being announced as a finalist in the Nature Positive category of the 2024 Green Gown awards. These awards recognise excellence in sustainability within Australasia's tertiary sector, and we were delighted to have this fantastic project acknowledged.

A new co-working space was launched in 2024 that will see a variety of innovative, sustainability-focused businesses basing themselves at Te Herenga Waka. Taiawa Wellington Tech Hub occupies a space in Rutherford House on the University's Pipitea campus. Many of the tenant companies are prioritising doing business in a more sustainable way, such as climate tech businesses Cogo and CarbonInvoice, and botanical prescription drug developer Evithé Bio. The initiative is a collaboration with Wellington City Council and aims to create opportunities for sharing ideas. "It will allow us to better work with Wellington's entrepreneurial ecosystem and create opportunities to create great synergies and value, not just for our students and researchers, but for Wellington's business community," says Professor Stephen Cummings, academic lead at Taiawa.

A conference jointly organised by Te Herenga Waka aimed to raise awareness about the challenges faced by Pacific Islands as a result of climate change, which leaders from across the region have identified as the single greatest threat to the security and livelihoods of Pacific people. Held in Sāmoa, the Pacific Ocean Pacific Climate Change Conference (POPCCC) featured an array of workshops, including some run by Te Herenga Waka academics from a range of disciplines that included climate science, law, and building science. Attendees included politicians, researchers, people from faith communities, activists, and those from the private sector and public service, who united to collaborate and contribute to this important cause. “The highlight was the spirit of coming together,” says Associate Professor Hon. Luamanuvao Dame Winnie Laban. “The POPCCC is a celebration of the fact that New Zealand is of the Pacific and no one is immune from climate change and what’s happening to our oceans. It’s also about the importance of building relationships across the Pacific.”

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OPERATIONS

Being a research institution investigating the causes and impacts of, and solutions to, global environmental crises is one very important aspect of what goes on at Te Herenga Waka. But as a large employer—one of the biggest in Te Whanganui-a-Tara—we also need to show how that can be achieved by actively striving to minimise our ecological impact.

We are exceptionally proud to have officially opened the University's groundbreaking marae redevelopment, Ngā Mokopuna, in 2024. Once 12 months of operational performance data has been gathered, Ngā Mokopuna will apply for the Living Building Challenge certification, as set out by the International Living Futures Institute. The challenge is a stringent, performance-based standard that seeks to advocate for, and create, regenerative projects that actively 'do good' instead of 'less harm'. Once certified, Ngā Mokopuna will be one of the world's most sustainable civic constructions: about 30 projects globally meet these incredibly high standards. It is the perfect physical respresentation of our goals and values, demonstrating our commitment to manaakitanga and kaitiakitanga: to act with more care towards people and the natural world.

Ngā Mokopuna is a global exemplar of sustainable practice and has set an extremely high precedent for the rest of our campus facilities and business processes to aspire to. We still have room for improvement. As we continue to rebound from the impacts of the pandemic, and the significant drop in enrolments and financial constraints of 2022/23, our consumption (and the associated environmental impacts) has also increased.

However, it is pleasing to see the ongoing waste minimisation initiatives (such as the Auraki reusable cup scheme we operate with the cafés to avoid single-use coffee cups, the introduction of reusable glass milk bottles in place of plastic bottles, the onsite worm farms for staff kitchen waste, the recycling wall for less common recycling streams, and follow-me printing to reduce paper use) continuing to make a positive impact.

Performance indicators	2020	2021	2022	2023	2024
Energy consumption—electricity and natural gas (GWh)	34.5	36.3	39.8	43.2	41.1
Air travel—University funded (million km)	11.1	3.8	17.1	33.8	42.4
Sustainable commuting mode Students (%) Staff (%)	 94.9 75.8	 94.8 75.8	 91.8 75.8	 93.7 75.8	 93.8 84.0
Commuting by car—staff and students (million km)	4.4	4.9	4.6	5.2	6.0
Waste and recycling Landfill (tonnes) Recycling and compost (tonnes)	 395 107	 458 126	 468 147	 389 183	 386 177
Paper consumption (reams)	15,500	12,600	21,000	6,209	2,586
Trees planted	1,000	2,400	4,150	3,150	3,400
Gross greenhouse gas emissions (tonnes CO_2e)	10,715	9,282	12,364	14,090	15,159

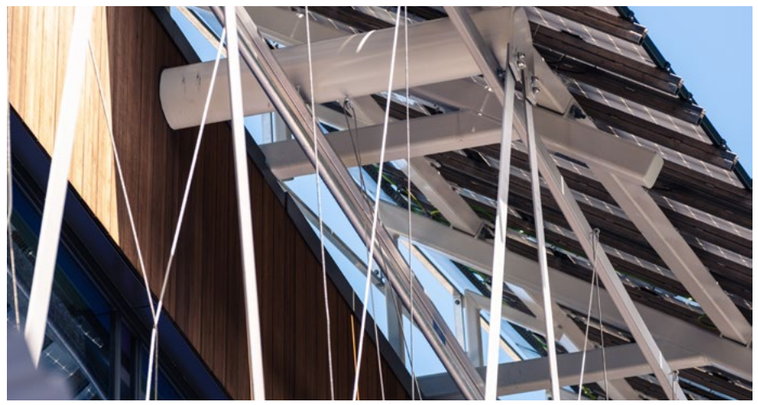
NGĀ MOKOPUNA OPENS ITS DOORS

In a moving dawn ceremony in December 2024, the University's wharenui—Te Tumu Herenga Waka—was reawakened and our newest building was officially opened up to a large crowd of attendees that included many staff and students. Named Ngā Mokopuna—which reflects Te Herenga Waka's commitment to nurturing future generations—the 'living pā' will be a cultural landmark in the region.

Deputy Vice-Chancellor (Māori and Engagement) Professor Rawinia Higgins (Tūhoe), says Ngā Mokopuna is showcasing what's possible in the city if there is vision, care, and a commitment to Te Tiriti. "As the first living building in the capital, Ngā Mokopuna is a vision of sustainability, infused with Indigenous wisdom—a place for people to get inspired and be part of a thriving community. It sets an example to the nation about what can be achieved with aroha, wisdom, and care."

In adhering to Living Building requirements, Ngā Mokopuna is net zero in water, with all water systems (grey, black, storm, and drinking) managed within the site, taking into account how they relate to the local ecology. Water is collected from the roof and stored in underground tanks, greywater is collected for vacuum-flushing toilets, and wastewater is treated on site rather than being discharged to the local sewerage system. The whare is also net zero in energy, with photovoltaic panels on the roof generating 105 percent of the building's electricity needs so it actually gives back to the grid.

The construction team paid rigorous attention to the building's materiality, with strict constraints on materials that contained toxic chemicals, and a requirement to divert a staggering 95 percent of the project's construction waste from landfill. Ngā Mokopuna can also lay claim to being Aotearoa's first carbon-positive commercial build in an urban setting, sequestering carbon in the structure by using locally grown and engineered timber.



In terms of that attention to sustainability, Ngā Mokopuna can be described as a 'construction industry game-changer'. "In so many ways, it represents a real paradigm shift for sustainability in the construction industry," says Rhonda Thomson, co-project manager of Ngā Mokopuna. "It goes beyond just being innovative: the whare is pushing benchmarks that far exceed anything that's been seen in Aotearoa before, and many people should feel a sense of pride in this. The project has a moral objective: to do the right thing for future generations."

In demonstrating a commitment to manaakitanga and kaitiakitanga—to act with more care towards people and the natural world—Ngā Mokopuna is a reflection of the University's strategic plan. The central pillars in our strategy are Te Herenga Waka, He Herenga Tāngata, and He Herenga Kaupapa—the gathering of the waka, the gathering of the people—and He Herenga Whakaaro, the gathering of the conversations or ideas. It is designed to be a place that enhances discussion, inclusion, and sustainability, and Ngā Mokopuna is the perfect realisation of the University's values and goals.

CLIMATE ACTION

Our Zero Carbon Plan has a 2030 target of net zero emissions and a 40 percent reduction in gross carbon emissions compared with our 2017 baseline. Reducing our greenhouse gas emissions remains a critical priority. In 2024, our total emissions were 21.2 percent below the 2017 baseline—roughly on track. Our annual Greenhouse Gas Inventory provides more detail on emissions and our work to reduce them.

Air travel is our largest source of emissions, but the post-pandemic rebound has largely been kept in check with air travel volumes still 21 percent less than pre-pandemic levels. A return to prioritising energy management has turned around several years of rising electricity and natural gas consumption. Finding a renewable energy replacement for natural gas as a fuel for heating is a key priority, with work already underway on the Rutherford House and von Zedlitz boiler systems. In 2024, we signed a new electricity supply contract with Meridian Energy—a renewable generator. We will undertake a tender process in 2025 for renewable energy certificates for all our electricity consumption to support the goal of 100 percent renewable energy.

A groundbreaking project led by Te Herenga Waka that assessed the impact of climate change on the tertiary sector in Aotearoa was recognised with an Australasian award. The Tertiary Education Sector Climate Futures Group, which encompassed all universities, wānanga, and Te Pūkenga (Institute of Skills and Technology) in Aotearoa, launched the From Sweet As to Oh Bugger—Sector-wide Climate Scenarios initiative. The project, initiated in 2023, aims to collaboratively assess how climate change will impact the tertiary education sector in New Zealand by 2100. Its final report presented four detailed climate scenarios, which will provide a flexible framework for tertiary institutions to guide their climate adaptation planning, ensuring a consistent approach across the sector while allowing for customisation to individual needs.

The project won the Powerful Partnerships category of the Green Gown Australasia Awards, which celebrate sustainability-focused initiatives being undertaken by the world's higher education institutions. Developing the climate scenarios was a truly collaborative effort across the participating institutions, and winning this Green Gown Australasia Award is a wonderful acknowledgement of the mahi involved in getting the whole sector to come together for the challenging, but critical, first step in developing our climate adaptation plans.

The scenarios have since been used in workshops across the University to determine the risks and opportunities most relevant to Te Herenga Waka. We then prioritised these based on likelihood and impact. Now we are developing our plan of how best to respond to those risks and opportunities, and how to integrate the actions within existing work streams.

The key opportunities include increased demand for climate-related teaching and research; increased population diversity leading to richer cultural exchange; utilisation of mātauranga Māori and Ngā Mokopuna; increased global connections to solve climate challenges; and growing our reputation, which helps to attract students through our climate action.

The key risks include the security of supply for utilities (particularly natural gas); the mental health of staff and students; the financial health of the University as well as financial stress for individual staff and students; the impact of weather events on campus facilities; greater inequities across staff and students as disadvantaged groups experience greater impacts of climate change; reduced internationalisation through less travel; increasing insurance costs; narrowing research funding; and city-wide housing shortages.

So, while we continue the work on reducing our carbon emissions, we must also ready ourselves for the impacts of climate change—some of which are already being felt.

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