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Kia tau ngā manaakitanga a te mea ngaro ki runga ki tēnā, ki tēnā o tātou.

Kia mahea te hua mākihikihi kia toi te kupu, toi te mana, toi te aroha, toi te Reo Māori kia tūturu, ka whakamaua kia tīna! Tīna! Hui e, Tāiki e!

Let the strength and life force of our ancestors be with each and every one of us.

Freeing our path from obstruction so that our words, spiritual power, love, and language are upheld; permanently fixed, established and understood! Forward together!

Karakia is a traditional Māori practice that has been embraced in modern New Zealand business, as a way to acknowledge cultural heritage. It creates a mindful beginning to proceedings, and demonstrates respect for Te Ao Māori (the Māori worldview) within professional environments.

Scan the QR code to listen to our karakia.





## + ACKNOWLEDGEMENT OF COUNTRY

Tonkin + Taylor Group acknowledges the Traditional Custodians of the land and waterways on which we work and live, and recognises their continuing connection to land, water, and culture.

We pay our respects to their Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples.

A Welcome to Country is a deeply significant cultural ceremony performed by Aboriginal or Torres Strait Islander Elders or Traditional Custodians. It welcomes visitors to their ancestral lands, and has become an important practice in Australian business settings as a meaningful acknowledgment of Indigenous connection to place and a demonstration of respect for the continuing cultural, spiritual and historical relationships of First Nations peoples with their traditional territories.

## OPINION

## NAVIGATING CHANGE AND BUILDING RESILIENCE WITH GROUP BOARD CHAIR VANESSA STODDART



"The sustainable solutions we create today generate benefits that can aid us now and extend far into the future."

What excites you most about stepping into the Chair role at Tonkin + Taylor Group? I'm delighted to join Tonkin + Taylor as we evolve the Next Pathway during challenging economic times globally. The DNA of the group is what excites me. We're employee-owned with loyal experts renowned for excellence in client service. We focus on critical projects whilst developing future leaders. Everywhere in our markets, you can see Tonkin + Taylor's legacy – that's so special. 'Together, we create and sustain a better world.'

What makes Tonkin + Taylor's approach distinctive? Our strength comes from combining technical excellence with a deep understanding of client challenges. As an employee-owned business, we take a people-centred, long-term approach that prioritises expertise to create lasting client value. Our teams bring both technical knowledge and understanding of how our work transforms communities for the better.

Why does this report's themes of sustainable impact today and tomorrow, made possible by our people, matter? These themes capture our essence perfectly. The sustainable solutions we create today generate benefits that can aid us now and extend far into the future, whether through resilient infrastructure, protecting the environment, or building communities. Our people make this possible — their expertise and commitment translate purpose into tangible outcomes.

What are you looking forward to in the coming year? I'm looking forward to seeing the Next Pathway evolve, giving focus, direction and understanding for our people and clients and establishing our future goals. I'm also looking forward to welcoming Bligh Tanner to the Tonkin + Taylor Group family. Their market-leading structural, façade, civil, environmental and water engineering strengthens our capabilities in Australia, providing a significant boost to our presence in the region while creating synergies that benefit both our clients and our long-term strategic position in Oceania.

I'm also looking forward to continuing to build the relationships between the board and shareholders, and the board and management; to ensure we are performance orientated, delivering on our goals, and agile and adaptive to the risks and opportunities in this uncertain world.

What are some of the trends we're facing in 2025? We're navigating a complex landscape of economic uncertainties, shifting political priorities, and evolving social expectations. While economic headwinds persist in some regions, we're also seeing demand for climate resilience solutions and infrastructure that meets changing community needs. This presents opportunities for us to adapt, invest and shift services to meet these trends. The conversation around sustainability and inclusion continues to evolve, requiring thoughtful engagement and authentic action.

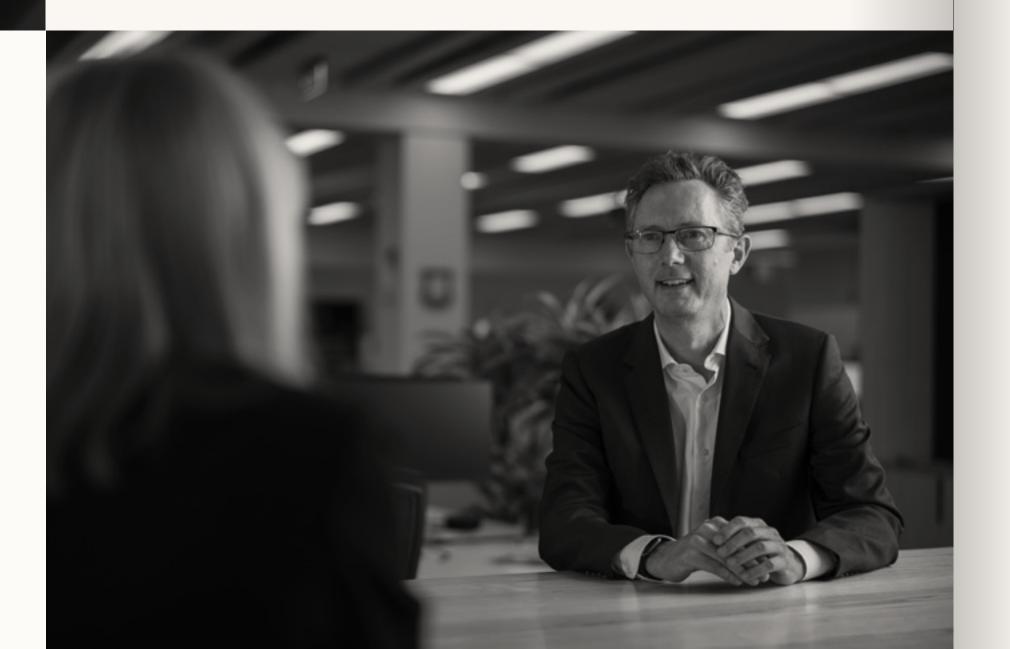
By staying true to our purpose while remaining agile, we're positioned to help our clients navigate these challenges and create enduring value even during uncertain times.



TONKIN + TAYLOR

## INSIGHT

ENGINEERING RESILIENT FUTURES
WITH GROUP MANAGING DIRECTOR,
DR TIM FISHER



How has Our Pathway 2025 transformed Tonkin + Taylor Group? It's guided us through a period of purposeful investment that's fundamentally increased our capabilities and set us up for the future. We set out to become more sustainable, digitally enabled, and globally connected — and that's precisely what we've achieved. These multi-year investments in our own sustainable future have positioned the Group well to tackle increasingly complex challenges for our clients and communities.

What tangible benefits are these investments creating? I see the benefits emerging daily across our projects. Our digital capabilities now provide insights we couldn't have generated just a few years ago such as Cirro that gives clients real-time analytics from their field instrumentation. On the sustainability front, I'm particularly proud of our teams achieving a 50% carbon reduction in the Waiouru Landfill Closure Project through innovative materials selection. Our membership of Inogen Alliance supports international clients and allows for global sharing of expertise. These examples show how strategic investments translate into practical outcomes that benefit our clients and communities alike.

What's your focus for 2025? We're concentrating on deeply embedding the capabilities developed under Our Pathway 2025 and bringing their full potential to our clients. What excites me most is seeing how our people have embraced these new dimensions of our work — whether it's applying digital twin technology to optimise water infrastructure or reducing project carbon footprints through sophisticated materials analysis.

We have also faced challenging market conditions in 2024 that continue into 2025. We have responded with a plan to set us up for the future by finding efficiencies in our businesses and also new opportunities for the future.

"We set out to become more sustainable, digitally enabled, and globally connected — and that's precisely what we've achieved."

Why report on strategic progress and sustainability this year? As we complete Our Pathway 2025 it is important to celebrate our progress and learn from what we have achieved which we do in our Strategic Report.

For Tonkin + Taylor sustainability is how we run our business and the thinking and expertise we bring to our project work for our clients. Sustainability isn't a separate consideration; it's interwoven with everything we do and we demonstrate that in our Sustainability Report.



Scan this code to view the full Sustainability Report.

What's on the horizon beyond 2025? We're developing Our Next Pathway to guide us through 2030, co-creating this future direction with our people, clients, partners and communities. This next chapter will strengthen our market-leading expertise, deepen our commitment to exceptional client service, and reinforce our standing as a workplace where talented professionals thrive. I've never been more confident in our collective ability to engineer resilient futures for the communities we serve.

"Our multi-year investments in our own sustainable future have positioned the Group well to tackle increasingly complex challenges for our clients and communities."

TONKIN + TAYLOR THE STORY OF 2024 SECTION

# CREATING SUSTAINABLE FUTURES ACROSS AUSTRALASIA



CREATING SPACE FOR MOVEMENT, REFLECTION, AND CONNECTION - TE AWANUI TAURANGA HARBOUR BOARDWALK + UNDERPASS

Tonkin + Taylor Group is an employee-owned family of companies providing environmental, engineering, testing and monitoring services throughout New Zealand, Australia and the Pacific.

We believe great things happen through partnership. Our collaborative approach means working directly with clients, alongside other organisations, and through partnering to deliver major infrastructure projects.

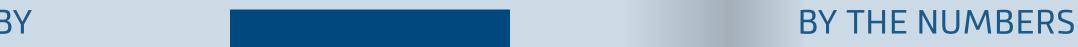
In 2023, we strengthened our global reach by joining the Inogen Alliance, a worldwide network of environmental, health, safety, and sustainability consulting firms. This partnership extends our contribution globally while bringing international expertise to benefit local projects.

TONKIN + TAYLOR	Delivering expertise across geotechnical, digital, planning, environmental, infrastructure and advisory services.
GEOTECHNICS AND CHADWICK GEOTECHNICS	Providing comprehensive testing, monitoring, equipment supply, hire and calibration services to the geotechnical, environmental and civil engineering industries.
BLIGH TANNER	Leading structural, façade, civil, environmental and water engineering services.

TONKIN + TAYLOR

THE STORY OF 2024

SECTION O



32%

28%

12%

11%

8%

**5**%

**4**%

EMPLOYEES

1292

**ACTIVE PROJECTS IN 2024** 

4705

WOULD RECOMMEND US AS A GREAT PLACE TO WORK

92%

OVERALL EMPLOYEE ENGAGEMENT SCORE

81%





FINANCIAL + INSURANCE

WATER

WASTE + RESOURCE RECOVERY

INDUSTRY

ENERGY

Our people work across 24\*\* offices and labs throughout New Zealand and Australia, as well as from innumerable remote locations including project offices and client facilities.

This creates an expert network that spans diverse communities and environments. Each of our locations is a hub of innovation and connection to the communities we serve, while our mobility and agility allow us to solve client problems from anywhere.

#### STAFF NUMBERS

**Auckland Region** 630

Waikato + Bay of Plenty

Central + Lower North Island

156

South Island

201

Queensland\*

**New South Wales\*** 

Victoria\*

Australia Remote\*



TONKIN + TAYLOR

THE STORY OF 2024 SECTION 02

## OUR MARKETS: DELIVERING IMPACT THROUGH OUR CLIENTS AND PROJECTS

#### PROJECT PORTFOLIO

In 2024 our teams delivered impressive results:

TONKIN + TAYLOR PROJECTS
IN NEW ZEALAND

2818

TONKIN + TAYLOR PROJECTS IN AUSTRALIA

300

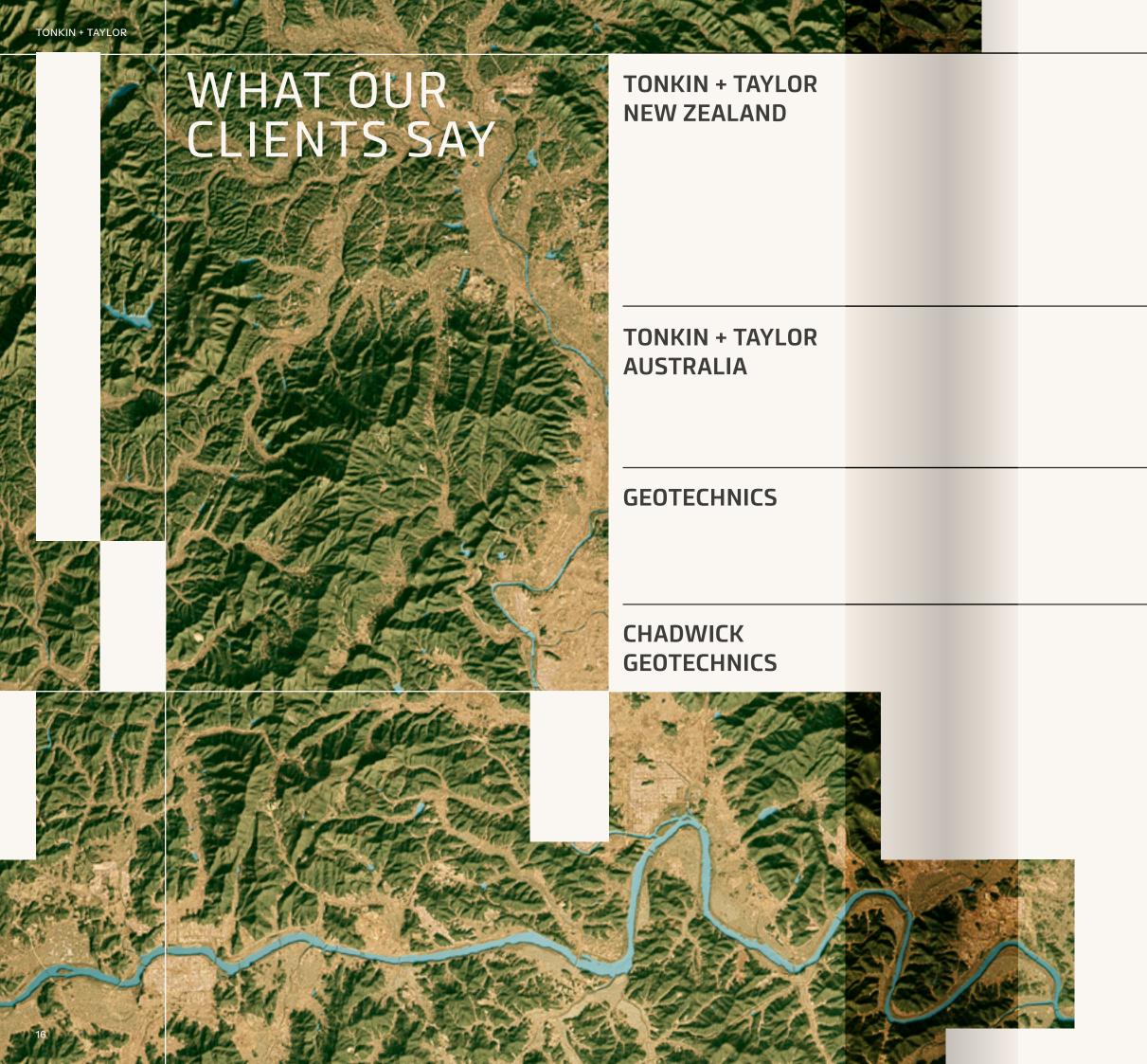
4705

total projects across
Tonkin + Taylor Group
for 2024

**GEOTECHNICS PROJECTS** 

1094

CHADWICK GEOTECHNICS PROJECTS



"Tonkin + Taylor has a client-centric approach, is attentive, and consistently meets our tight deadlines. Their technical expertise and creativity have been invaluable. Their problem-solving enabled us to deliver the project on time and to a high standard. For anyone seeking quality engineering services combined with a commitment to environmental stewardship, Tonkin + Taylor is an excellent choice."

"They all get it and are helpful and proactive around when we can push the design standards and when we can't. They're enjoyable to work with. They deliver on time, and when variations come through, they're also willing to have the conversations."

"The level of professional advice given, and also how they work with the customer to find a solution that's best for them, were the highlights of my experience working with Geotechnics."

"I've found it easy to work with Chadwick Geotechnics because they have the experience and expertise to resolve queries efficiently in-house. Unlike others who may only handle level one and then require external advice, Chadwick Geotechnics can quickly provide the answers needed without adding delays to the project. Their ability to identify the right people internally and get results makes the process much faster and smoother." TONKIN + TAYLOR STRATEGIC JOURNEY SECTION 03

## **OUR PATHWAY** 2025

**PURPOSE** 

+ Together we create and sustain a better world

**VALUES** 

- + Everyone matters
- + Empowered to deliver
- + Excellence every day

**VISION** 

+ Renowned for inspiring sustainable futures

**STRATEGY** 

- + Continually strive to be better for our people, our clients and our communities
- + Being sustainable is embedded in everything we do
- + A digital approach to bring our expertise to the market
- + A company that is globally connected

#### BUILDING MOMENTUM IN 2024

This past year, we've maintained our fundamental commitment to continual improvement, seeking to be better in everything we do. Alongside this enduring focus, we've advanced three transformative areas that are reshaping our capabilities:

#### Digital

Deepening our digital capabilities has We're embedding sustainability revolutionised how we work internally principles into our practices, decision and with clients. From Project Orbit frameworks, and outcomes. Through streamlining complex infrastructure our Sustainability by Design process, workflows to Geotechnics' Cirro platform we're integrating considerations at network and international business providing real-time site analytics, our digitalevery project stage, while our carbon first mindset is delivering tangible value.

#### Sustainability

calculation tools help clients make informed choices with confidence.

#### **Globally Connected**

As members of the Inogen Alliance and with a strengthened Pacific presence, we're bringing global insights to local challenges. Our Friends of Global connections are creating new pathways for knowledge sharing and collaboration.

#### A PURPOSE AND VALUES **DRIVEN JOURNEY**

For several decades, Our Pathway has guided us in the direction we take and how we get there. Our overarching Purpose and Values continue to be our North Star - why we are here and how we show up. We use our Vision to set the direction and the Strategies are what we do to achieve it.

#### **LOOKING AHEAD**

As Our Pathway 2025 enters its final year, we're focused on leveraging the opportunities these strategic investments have created. With deeper focus on business performance and client outcomes, we'll continue inspiring sustainable futures for the communities we serve.

At the same time, we're excited about co-creating our next pathway — looking to 2030 and beyond. Working alongside our people, clients, partners and communities, we're defining what it will take to deliver the outcomes our world needs in the coming decade, ensuring we continue fulfilling our purpose: Together we create and sustain a better world.

TONKIN + TAYLOR STRATEGIC JOURNEY SECTION 03

## OPERATIONS: DELIVERING THROUGH CHALLENGE

#### TONKIN + TAYLOR IN NEW ZEALAND: RESILIENCE AND ACHIEVEMENT

#### **HIGHLIGHTS**

- + Resilient performance in challenging market conditions
- + Substantial growth in Pacific work and renewables projects
- + Collaborative work on SH25A reconnection recognised with multiple industry awards
- + International environmental recognition for work within Mt Messenger Alliance
- + Significant milestones on major projects, including opening of SH1 Puhoi to Warkworth (P2W), formation of the interim alliance for delivery of the southern section of Ōtaki to North of Levin (Ō2NL), construction of O Mahurangi | Penlink, Te Ara o Te Ata | Mt Messenger Bypass and construction of artificial reef for water quality improvements on Te Ara Tupua

#### **ACHIEVEMENTS**

- + Rebuilt our work in the Pacific after Covid disruption
- + Auckland Council's Making Space for Water programme
- + Completed rebuild works on SH25A Taparahi Bridge
- + Contributed to the Transport Rebuild East Coast (TREC) design sub-alliance
- + Extended work with Kāinga Ora transforming Auckland neighbourhoods via the LEAD Alliance
- + Relocated Wellington office with a 6-star Greenstar rating and expanded Nelson and Tauranga facilities
- + Winner of 2024 Beaton Client Choice Award for Best Provider to Government and Communities



## GEOTECHNICS: EVOLVING WITH THE MARKET

+

#### A year of strategic adaptation

2024 saw impressive strategic development of offerings to the renewables sector, with numerous and growing solar farm investigations and testing projects.

+

#### More sustainable operations

Introduced DriveSmart (Eroads) as part of our fleet management sustainability initiatives.



## "A challenging year with a constantly evolving marketplace."

PAUL BURTON
CHIEF EXECUTIVE - GEOTECHNICS

+

#### Innovation at the forefront

We developed a freshwater macro-invertebrate offering (winner of our internal Dreamlab innovation competition) while bringing digital offerings to life with Adit on Ō2NL and to the wider market. Cirro continued to build revenue momentum.

+

#### **Cultural strength**

Demonstrated highly collective cultural development through challenging financial conditions, with teams collaborating to manage costs and drive revenue-gathering activities.

"Business adaptation and Bligh Tanner joining the Group have set us up well for the future."

TIM CHADWICK
CHIEF EXECUTIVE, AUSTRALIA



#### TONKIN + TAYLOR AND CHADWICK GEOTECHNICS IN AUSTRALIA: ADJUSTING TO MARKETS AND SETTING UP FOR THE FUTURE

+

#### Strategic realignment

Challenging market conditions required business changes to set us up for the future. Our strategy for Queensland and New South Wales markets will be greatly enhanced by Bligh Tanner joining the Group.

+

#### Leadership development

Successfully appointed General Managers in both businesses and began the transition to a practice-led management structure in Tonkin + Taylor Australia.

-

#### Technical expansion

Expanded Chadwick Geotechnics' range of NATA accredited specialist testing services in Victoria and Queensland.

4

#### **Emerging strengths**

Experienced encouraging growth in Circular Economy, Renewable and Water/Coastal services in Tonkin + Taylor Australia.

Access to the technical talent of Bligh Tanner and their clients will significantly strengthen our Australian operations.

+

#### Commitment to Reconciliation

Successfully implemented our Reflect Reconciliation Action Plan (RAP), laying a strong foundation for meaningful engagement with First Nations communities and shaping our approach to reconciliation across our businesses.

# POWERING POSSIBILITIES: OUR DIGITAL TRANSFORMATION JOURNEY

At Tonkin + Taylor Group, we're transforming how these stories are told — moving from static reports to dynamic, real-time narratives that empower better decisions for our clients and communities.

Our digital transformation isn't about technology for technology's sake. It's about connecting people with insights that matter, precisely when they need them. It's about making the invisible visible, and the complex understandable.



In the heart of an engineering project, data tells a story. It reveals the health of a dam, the stability of soil beneath a foundation, or the hidden patterns of water moving through a catchment.

"Our role at Tonkin + Taylor Group is to solve client problems through innovative solutions and unparalleled capability. We leverage cutting-edge technology and industry expertise to deliver insights that matter, precisely when they are needed. By transforming data into actionable intelligence, we empower our clients to make informed decisions, optimise sustainable operations to support wider community outcomes. Our commitment to innovation ensures that we not only meet today's challenges but also anticipate and shape a healthier and resilient future."

WAYNE BROEKHALS
EXECUTIVE LEADER - CHIEF DIGITAL OFFICER

## DIGITAL SOLUTIONS IN ACTION

When Tauranga City Council faced the challenge of optimising their water infrastructure, we didn't just offer conventional engineering advice. Our teams worked collaboratively to create digital representations of 13 critical Ceramic Membrane Filtration (CMF) units at the Oropi water treatment plant, integrating these digital models into the council's asset management system

"This complete digital transformation has fundamentally changed how we maintain these assets," explains David Wyllie, who led the project. "Rather than reacting to issues, operators can now visualise the entire system, predict maintenance needs, and make informed decisions that extend asset life while reducing costs."

Similar transformations are happening across our projects. On the Ōtaki to North of Levin (Ō2NL) highway project, our Geotechnics team deployed Adit, a sophisticated digital tool that revolutionises site data collection. Instead of waiting days for field notes to be processed, project managers now access critical geotechnical information in real time, allowing for faster, more responsive decision-making throughout construction.

For major infrastructure initiatives, Project Orbit has become our platform of choice — streamlining complex workflows, enhancing reporting capabilities, and creating unprecedented collaboration opportunities. When hundreds of specialists from different organisations come together on projects like Te Ara o Te Ata | Mt Messenger Bypass, this digital backbone ensures everyone works from a single source of truth.

## INTEGRATING GENERATIVE AI



As part of our commitment to digital transformation, we are integrating generative AI within the Tonkin + Taylor Group to enhance productivity, efficiency, and competitive advantage. Generative AI is revolutionising how we approach complex problems, enabling us to generate innovative solutions and insights faster than traditional methods. By leveraging AI, we can automate routine tasks, allowing our experts to focus on higher-value activities that our clients want.

## FROM INSIGHT TO INNOVATION



Our digital journey is creating innovative service offerings that directly address client needs. Geotechnics' Cirro platform exemplifies this approach — delivering real-time site data and analytics that reduce risk and save time on tight-timeline projects while opening new revenue streams.

Similarly, Damtec provides asset owners with a single source of truth for dam safety data, transforming regulatory compliance into strategic asset management.

"What makes tools like Damtec powerful isn't just the technology," notes Glen Nicholson, Director of our Energy Sector. "It's how they translate complex engineering principles into accessible insights that drive better decisions."

Our Energy Sector team is also leveraging digital capabilities through the Inogen Alliance's Energy Transition Working Group to anticipate and shape future energy strategies across New Zealand and Australia.

The true power of these digital transformations lies in how they enhance human expertise — freeing our engineers and scientists to focus on solving complex problems rather than managing data. By turning information into actionable insights, we're expanding possibilities for our clients, communities, and shared environments.

TONKIN + TAYLOR FEATURE STORIES: THREE PILLARS OF CHANGE

## OUR GLOBALLY CONNECTED STORY

## GROWING OUR GLOBAL NETWORK



In 2023, Tonkin + Taylor joined the Inogen Alliance — a global alliance of environmental, health, safety, and sustainability consulting firms.

With Richard Hancy representing Tonkin + Taylor on the Inogen Alliance board, and many of our people on the various working groups, we have the opportunity to shape international best practice while bringing global innovations back to our clients.

Our international business networks continue to expand, with engagement through New Zealand Trade + Enterprise (NZTE) and membership in the ASEAN Business Council and British New Zealand Business Council. These connections open doors to new relationships while providing valuable insights into international trends and opportunities.

## STRENGTHENING PACIFIC CONNECTIONS



In 2024, we significantly strengthened our Pacific presence through the appointment of Pacific Country Business Development Leads. These business development leaders are focused on oversight of market intelligence, business opportunities and facilitate strong, enduring relationships with local clients and partners.

With climate change, sea levels, and natural disasters rising, environmental infrastructure challenges in the Pacific grow too. Our proven 60-year track record allows us to support the Pacific region in partnership with providers on the ground, combining expertise with local knowledge.

"Our Pacific work is about genuine partnership – combining our technical capabilities with deep local understanding," notes Chris Freer, Pacific Business Development Manager.

From climate resilience projects to sustainable infrastructure development, our teams are helping Pacific communities prepare for the challenges and opportunities ahead.

#### GLOBAL COLLABORATION WITHOUT BORDERS



Internally, our Friends of Global initiative strengthens support networks for team members working internationally, while our new Tonkin + Taylor Alumni network maintains relationships with former colleagues worldwide.

Our specialists actively contribute to global knowledge sharing. Ken Macdonald, Sector Director for Water, represented our expertise at the AWS (Alliance for Water Stewardship) conference in Scotland, an opportunity that came about through an Inogen Alliance connection. Jon Rix, Principal Water Consultant shared his practical perspectives on applying flood risk understanding to inform adaptation action on Inogen Alliance podcast and webinar, while Chris Shanks, Discipline Manager, presented on improving public health through geospatial analysis, winning an Institute of Public Works Engineering Australasia (IPWEA) presentation award.

## GROWING GLOBAL CONNECTIONS AND INSIGHTS



Our international engagement includes knowledge sharing and thought leadership. In 2024, we presented at the 29th United Nations Climate Change Conference (COP29) in Azerbaijan, gaining international media exposure through the Inogen Alliance article in The Economist, as well as a BBC promotional video featuring our Pacific response work and Hawke's Bay coastal adaptation.

SECTION 04

Te Ara o Te Ata - Mount Messenger Bypass receiving the Transportation Project of the Year at the Environment Analyst Sustainability Delivery Awards in Boston highlighted how our work resonates internationally.

As part of our commitment to knowledge sharing, we presented a joint webinar with Cholamandalam MS Risk Services Limited for the Indian market focused on climate risk, extending our influence and learning across diverse contexts.

These global connections extend across our technical disciplines, with team members actively participating in Inogen Alliance Working Groups focused on Water, Sustainability, Mergers and Acquisitions, D igital, Remediation, International Development, Infrastructure, Ways of Working and Energy Transition. Through these specialised forums, our experts share knowledge while learning from international colleagues, all for the benefit of our clients.

"In today's interconnected world, the ability to collaborate across borders is more than nice to have — it's essential. The environmental and infrastructure challenges we face are global in nature, requiring solutions that draw on the best thinking from around the world while respecting local contexts and needs."

RICHARD HANCY **EXECUTIVE LEADER - GLOBAL** 

#### **ELEVATING INDUSTRY** KNOWLEDGE **THROUGH PARTNERSHIPS**

Our engagement with the Association of Strategic Alliance Professionals (ASAP) has been particularly valuable. This connection has enhanced our understanding of best practices in business-tobusiness partnering, with five partner relationships already deployed using the ASAP framework.

"Using a proven, practical framework to assess potential partner relationships is essential in the modern business environment. This helps us and our partners minimise the risks associated with collaborative relationships and realise our true potential together. This ultimately creates more value for our clients and communities." -Casey Giberson, Global Head of Partnerships.

#### **LOOKING AHEAD: A CONNECTED FUTURE**

The addition of Bligh Tanner to Tonkin + Taylor Group in 2025 further strengthens our global and strategic position. Their expertise aligns perfectly with part of our vision for sustainable futures, enhancing our capacity to deliver innovative solutions across borders.

As we look to the future, our global connections will continue to evolve and deepen. The challenges facing our communities - from climate adaptation to sustainable development - transcend national boundaries, requiring collaborative approaches that bring together diverse perspectives and expertise.

Through our growing network of partnerships, we're well positioned to contribute meaningfully to these global challenges while bringing world-class thinking to the communities we serve every day.

Through collaboration with others — connecting global expertise with local knowledge — we're creating more resilient, sustainable futures for all the communities we serve.



ONKIN + TAYLOR FEATURE STORIES: THREE PILLARS OF CHANGE

At its heart, our work is about creating a better world. Every bridge or water system, every project solution or remediation strategy, shapes how people live, work, and connect with their environment and communities.



DESIGNED TO GUIDE, CONNECT, AND BRING COMMUNITIES TO THE WATER - TE AWANUI TAURANGA HARBOUR BOARDWALK + UNDERPASS

At Tonkin + Taylor Group, we've recognised that this profound responsibility demands a holistic approach — one that considers not just technical requirements, but environmental, social, and cultural dimensions as well.

"Sustainability isn't separate from engineering excellence — it's fundamental to it," says Tim Fisher, Group Managing Director. "When we integrate environmental stewardship, community wellbeing, and cultural respect into our technical solutions, we create outcomes that truly stand the test of time."

Please read our Sustainability Report for a full description of our sustainability efforts and impacts. This section contains some of the strategies and highlights.



Scan this code to view the full Sustainability Report.

## INSPIRING SUSTAINABLE FUTURES: OUR PATHWAY TO IMPACT

#### DELIVERING SUSTAINABILITY FOR OUR CLIENTS

For us, sustainability is more than a corporate strategy - it's about helping our clients and partners create meaningful change, and making sure that we're walking the talk. We see Sustainability as making critical choices that safeguard our planet and its people. Our Sustainability Policy sets out this commitment. We aim to actively respond to local and global social and environmental challenges, and shape a future where the natural environment is truly valued and protected, where people and places are thriving, and where all individuals are healthy, fulfilled, and empowered to pursue their aspirations.

As part of our comprehensive service offering, our teams deliver specialist sustainability services that directly support clients in achieving more sustainable outcomes. Our expertise spans critical focus areas including:

#### **Sustainability Strategy and Reporting**

- + Materiality + prioritisation
- + Strategy + planning
- + Reporting + disclosures

#### Māori Advisory

- + Cultural impact assessments
- + Strategy + planning
- + Tikanga and mātauranga integration
- + Te reo interpretation
- + Treaty responsiveness

#### **Climate Change**

- + Emissions measurement + reduction
- + Impact + risk assessment
- + Adaptation + transition planning
- + Regulatory compliance

#### **Nature and Biodiversity**

- + Nature inventory + footprints
- + Impact + risk assessment
- + Nature-based design solutions
- + Monitoring + evaluation

#### Circular Economy + Resource Recovery

SECTION 04

- + Audits, strategy + policy
- + Investment cases
- + Supply chain assessments
- + Material flow mapping
- + Monitoring and evaluation

#### **Audit. Assurance and Verification**

- + EcoChoice Aotearoa standards
- + Life-cycle assessment
- + Management system audit
- + Assurance + verification



We help our clients navigate the evolving sustainability landscape, translating complex environmental challenges into actionable, innovative solutions.

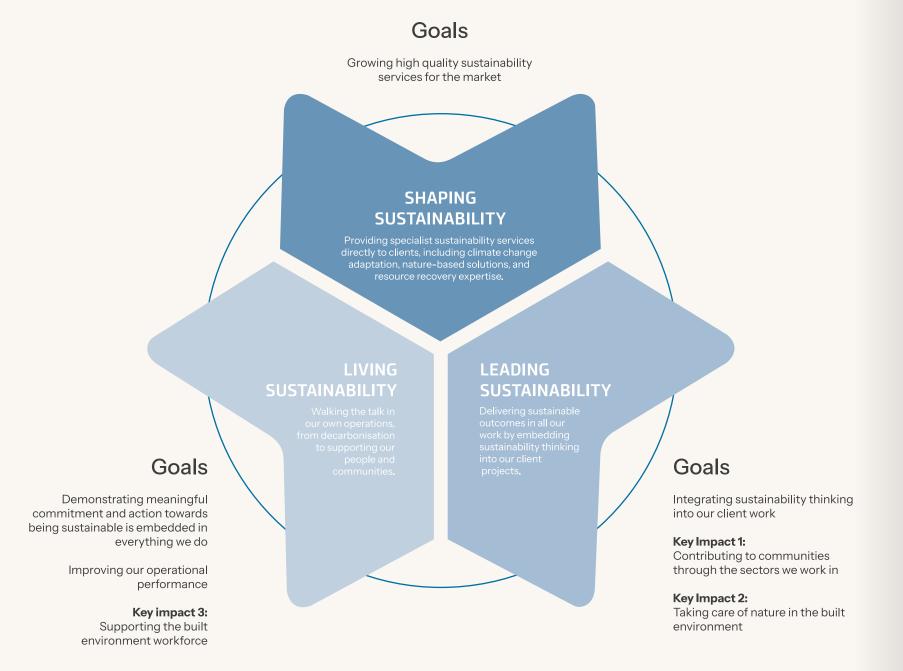
#### **OUR SUSTAINABILITY FRAMEWORK** AND STRATEGY: A SHARED LANGUAGE FOR IMPACT

Our commitment to sustainability is brought to life by passionate people who drive action across multiple fronts.

Conversations about sustainability can be challenging without a common understanding of what we're trying to achieve. That's why we've developed our Sustainability Framework — a practical guide that gives us a shared language for the outcomes we impact, enable, and influence through our work and operations.

Drawing inspiration from the United Nations' Sustainable Development Goals (SDGs), government and indigenous wellbeing frameworks, and infrastructure sustainability tools, our framework spans 16 outcome areas. From biodiversity and climate to community and culture, it captures the multi-faceted nature of sustainability while remaining practical and applicable to our daily work.

But a framework alone isn't enough. To drive meaningful action, we've structured our sustainability strategy around three key pathways for influence:



#### KEY IMPACT AREAS: WHERE WE MAKE A DIFFERENCE

Through a rigorous materiality assessment informed by stakeholder perspectives and international best practice, we've identified three areas where our influence can be most profound:



#### Contributing to communities through the sectors we work in

Our work with clients who deliver essential services - like water supply, energy, and transportation — means that we contribute to communities having reliable access to vital infrastructure while being protected from natural hazards. We help industry operate safely and support the effective management of waste and resources.

In 2024, we clarified the key SDG indicators **Taking care of nature** for each sector we work in. This year, in the built environment we're developing a baseline that will guide our future goals and targets. From While our many construction activities can increasing renewable energy generation to improving safe drinking water access, these indicators translate abstract goals into tangible outcomes.



significantly impact local environments, when construction is needed, thoughtfully designed solutions can also protect and regenerate natural systems. We're focused on placing nature at the heart of design decisions, helping clients better understand environmental impacts and find solutions that benefit the natural world.

Our newly established Sustainability by Design process is working to integrate sustainability considerations at every project stage. This approach will help identify likely impacts early, develop New Zealand and Australia. Through our solutions with clients, and capture innovations for future projects. Supporting tools like our carbon calculation software help teams estimate embodied and lifecycle carbon, making environmental impacts more visible and actionable.



#### Supporting the built environment workforce

The built environment workforce represents a significant proportion of workers in own operations and our engaging with our clients, partners and wider sector, we're working to improve workforce outcomes - from increasing diversity and creating new pathways into the profession to supporting mental health and wellbeing.

As a signatory to the Diversity Agenda Accord, we're committed to supporting diversity across the sector. This includes measuring and reporting on our own progress toward greater inclusion. In 2024, we published our very first Gender Pay Transparency Report and achieved GenderTick accreditation, acknowledging our ongoing leadership in gender equality.

TONKIN + TAYLOR LIVING OUR VALUES SECTION 05

#### LIVING OUR VALUES

Our commitment to climate action starts with our own operations. We've reduced\* our tCO<sub>2</sub>e emissions 7% compared to our 2018 baseline, which represents a 34% reduction in tCO<sub>2</sub>e per full-time equivalent team member. We've been Net Zero Carbon certified since 2020 for the emissions we haven't avoided. We're not stopping there - we've set ambitious targets of 51% reduction by 2030 and 90% by 2040.

#### CLIMATE ACTION: MEASURING PROGRESS, DRIVING CHANGE

Our biggest emissions sources — driving, flying, and electricity — have guided our practical reduction strategies:

#### **Future travel mindset**

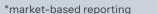
We're reimagining how we approach travel, considering carbon, costs, relationship building, and wellbeing. This more intentional approach will help us make smarter choices about when and how we move around.

#### Better fleet

Our vehicle fleet policy prioritises electric vehicles and right sizing our fleet. In 2024, electric/hybrid vehicles made up 19% of our fleet, with access to additional charging infrastructure at our premises. The integration of EROAD telematic technology will provide valuable insights that drive further optimisation.

#### Clean energy

For New Zealand facilities where we hold direct contracts, we've been switching to certified climate-positive energy providers. Our commitment to Green Star certification for new or significantly expanded facilities — like our 6-star rated Wellington office — further reduces our energy footprint.



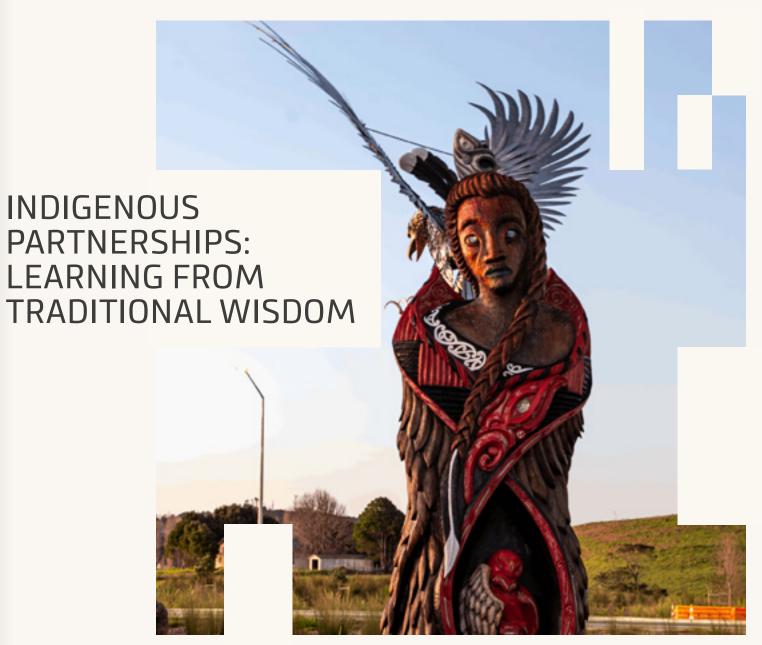


Photo credit: Northern Express Group (NX2)

Common across many indigenous cultures is a profound connection to the environment and understanding of natural systems. Through our work in New Zealand, Australia, and the Pacific, we've been privileged to work with knowledge holders and have seen how indigenous perspectives can lead to risk reduction, innovation, and improved outcomes.

"By integrating indigenous knowledge, values, and perspectives, we create more resilient, sustainable, and culturally grounded solutions for our clients. It not only drives better project outcomes; they foster stronger communities, deeper connections, and a future where infrastructure serves both people and place in a meaningful way." – Angela Young, Corporate Marketing + Indigenous Director.

In New Zealand, we've established Te Kāhui Ngao Matariki (our Māori Leadership Team) and developed a Māori Strategy that guides our engagement with Māori communities and integration of Te Ao Māori (the Māori worldview) into our work.

Similarly, our Reconciliation Action Plan in Australia demonstrates our commitment to understanding First Nations peoples' experiences and contributing to national reconciliation. In 2024, our Australia-based staff had opportunities to develop cultural awareness through training, resource sharing, and engagement with organisations like the Clontarf Foundation.

organisations like the diontan Foundation.

TONKIN + TAYLOR

#### LIVING OUR VALUES

#### SECTION 05

## COMMUNITY PARTICIPATION: CREATING LASTING CONNECTIONS

We understand that our success is intertwined with the wellbeing of the communities where we work.

Despite challenging economic conditions, our teams continue to support communities through donations and office-based activities, including support for causes such as Movember, Breast Cancer Foundation NZ, and the Outward Bound Maunga Course for young people from Taranaki.

We have developed a Community Partnership Plan to guide our efforts and create more meaningful impact.

Our partnerships with educational institutions and organisations like The Wonder Project, TupuToa, and Pūhoro STEMM Academy demonstrate our commitment to building pathways into our industry for diverse talent.

#### INDIGENOUS AND TE TIRITI POSITION STATEMENTS

#### INDIGENOUS STATEMENT

Tonkin + Taylor Group is committed to supporting the strategies and aspirations of indigenous communities.

We strive to make Tonkin + Taylor Group a place where indigenous principles, voices, knowledge and outcomes shape our work ethic as well as the projects entrusted to us.

Through respect, good faith and cooperation we will contribute to the correction of historical injustices.

We commit to leaving a positive footprint and constructing a long-lasting legacy that honours and uplifts indigenous communities.

We believe that meaningful relationships and supportive actions are instrumental in establishing long-lasting strategic partnerships.

We are dedicated to fostering the growth of indigenous leaders, so they are equipped to carry the mantle of their elders and set the course for generations to come.

#### TE TIRITI STATEMENT

Tonkin + Taylor Ltd and Geotechnics are committed to upholding Te Tiriti o Waitangi. We also acknowledge the place of He Whakaputanga o te Rangatiratanga o Nu Tireni in the whakapapa of Te Tiriti o Waitangi. These documents are taura whiri, intertwining threads that connect all taonga here in Aotearoa.

Tonkin + Taylor and Geotechnics expresses its deepest respect for Kaitiaki who guide the union of traditional and international engineering, science, and decision-making practices, that result in the development of sustainable solutions.

Tonkin + Taylor and Geotechnics will act in good faith to maintain an inclusive environment where mātāpono, mana and hua guide our ethos and that of the projects we are trusted with.

We believe in embracing growth opportunities that prepare Aotearoa New Zealand for a future inspired by Te Tiriti o Waitangi.

We are dedicated to inspiring future Māori leaders into the industry and, in collaboration with whānau, foster their growth, so they are equipped to carry the mantle of their tupuna and shape the direction for future generations.

## INSPIRING FUTURE ENGINEERS: THE WONDER PROJECT

As gold sponsors of Engineering New Zealand's Wonder Project, we're helping ignite STEM passion in young minds across 583 schools — 62% in deciles 1-7 — with special focus on girls, Māori and Pacific students, showcasing STEM in action with hands on learning activities.

Charlotte Arcus, our Three Waters Design Engineer, is among 21 volunteer ambassadors bringing real-world engineering excitement into classrooms.

"Over a school term you really connect with the students, witness their curiosity and growth, and start to see future engineers emerge," says Charlotte. "When you see that spark of understanding light up, you know you're making a difference to their future possibilities."

#### CONNECTING MĀTAURANGA MĀORI WITH STEM: PŪHORO STEMM ACADEMY PARTNERSHIP

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With Māori representing only 3% of Diversity Agenda member firms' workforces despite comprising nearly 20% of New Zealand's population, our partnership with Pūhoro STEMM Academy is addressing this critical gap.

The initiative helps young Māori connect traditional knowledge (mātauranga Māori) with contemporary STEM (science, technology, engineering, mathematics) education through wānanga (learning forums) and hands-on engineering challenges.

"I enjoyed hearing about the different engineering opportunities. It encouraged me to want to study engineering," shared one participating student after building a bridge with our mentors

The impact is clear — over 40% of our 2024/25 intern cohort now comes from Māori or Pacific backgrounds.

## BRINGING IT ALL TOGETHER: A HOLISTIC APPROACH

What makes our sustainability journey distinctive isn't any single initiative—it's how we're weaving these diverse strands into a cohesive approach. From our Purposeful Decisions Principles that guide how we choose and deliver work with our clients and partners, to our sustainability capability programme that builds our people's skills, we're creating an organisation where sustainability thinking becomes second nature.

"We thrive when we're helping our clients tackle problems that really matter - we do our best work when we're working together with our clients and communities to create and sustain a better world." - Penny Kneebone.

As we look ahead, we're focused on further integrating these practices, measuring our impact more comprehensively, and sharing what we learn with clients and partners. By continually raising our ambitions and refining our approach, we're not just adapting to a changing world—we're helping shape a more sustainable future for the communities we continue to serve.



## BUILDING A PEOPLE CENTRED CULTURE

At the core of Tonkin + Taylor is a genuine commitment to our people, clients, and communities that shapes everything we do. It's not just about policies — it's about creating an environment where everyone thrives.

Our approach to diversity, equity, inclusion, and belonging isn't theoretical. It's practical and embedded in our everyday operations. Initiatives like 'Working from Anywhere' and 'Culturally Significant Leave Swap' demonstrate how we're adapting to meet diverse needs, creating a work environment that's balanced, flexible, and culturally responsive.

At Tonkin + Taylor, our values are more than words — they're the heartbeat of our organisation. Our commitment to our value, EVERYONE MATTERS, drives how we approach key aspects of our work:

- + HEALTH, SAFETY, AND WELLBEING
- + COMMUNITY SUPPORT
- + DIVERSITY, EQUITY, INCLUSION, AND BELONGING
- + ADDRESSING SYSTEMIC CHALLENGES LIKE MODERN SLAVERY

Our guiding values of being EMPOWERED TO DELIVER AND ACHIEVING EXCELLENCE EVERY DAY fuel our learning and development programmes. We're dedicated to providing our people with the skills, tools, and support they need to turn their professional aspirations into reality.

We create an environment where people develop through practical experience. By sharing skills, providing the right tools, and offering clear guidance alongside freedom to grow, we see our team members tackle challenges with increasing confidence and creativity, benefiting both their personal aspirations and our collective goals.

A standout achievement in this approach is our Career Compass tool, which was recognised as a finalist at the 2025 HRNZ awards. This innovation reflects our commitment to personalised professional development that respects individual journeys, as does Barbara Daxenberger winning HR Professional of the Year at the same awards.

The effectiveness of these approaches is reflected in our company-wide Voices of Our People survey. The consistently positive feedback tells us we're heading in the right direction. The culture we're building at Tonkin + Taylor Group is one where professional excellence and personal wellbeing grow together.

#### **VOICES FROM OUR TEAM**

Our April 2024 engagement scores tell a powerful story about our culture.

"I would recommend this company as a great place to work"

92%

AGREEMENT

"I am proud to work for this company"

91%

AGREEMEN'

"My team leader/manager genuinely cares about my wellbeing"

90%

AGREEMENT

"The company provides a workplace experience that is inclusive"

90%

AGREEMEN

#### We track our progress by monitoring:

- Employee feedbackPeriodic survey insights
- + Learning platform engagement
- Employee retention rates

This multifaceted approach ensures development becomes an ongoing journey, accommodating different learning preferences and career stages.

## CAREER DEVELOPMENT: MORE THAN A PATHWAY, A PARTNERSHIP

Our Career Compass tool exemplifies our approach to professional growth. Developed in collaboration with the University of Auckland Business School, this innovative framework empowers our people to navigate their career options with personalised support.

We recognise this was something we needed to address, and we are continuing to drive and embed goal setting as an ongoing area for continued growth.

#### LEARNING THROUGH MULTIPLE DIMENSIONS

We recognise that meaningful learning happens in diverse ways. Our comprehensive learning framework weaves together three key pathways:

> LEARNING THROUGH EXPERIENCE:

LEARNING THROUGH

FORMAL LEARNING:

Creating opportunities for challenging project work and gradual responsibility expansion.

Facilitating knowledge exchange through mentoring, communities of practice, and collaborative teams.

Providing digital resources, courses, conferences, workshops, eLearning, reflection and expert networks to support team members when they need it most.

## HEALTH & SAFETY: PROACTIVE CARE IN DIVERSE ENVIRONMENTS

Our approach to health, safety, and wellbeing (HSW) recognises the unique challenges of our work environments — from active construction sites to remote fieldwork locations.

A HOLISTIC APPROACH TO SAFETY

Built on the premise that good work and positive culture lead to great HSW outcomes, our strategy goes beyond compliance. We prepare our teams to navigate complex environments through a people focused, collaborative, risk based approach. Our robust systems have been recognised through the following certifications:

- ISO45001 certification
- Perfect scores in Totika and Site Wise prequalification schemes
- A 5-star IMPAC prequalification rating

Our customised Job Safety and Environmental Analysis (JSEA) online tool is a prime example of our innovative approach. With built-in behavioural nudges and specific risk guidance, it helps our people identify and mitigate risks in dynamic environments.

MEASURING AND IMPROVIN OUR PERFORMANCE

In 2024, our Health and Safety management system strategy yielded tangible results:

- Reduced incident severity profile
- Increased near-miss reporting
- Small reduction in total HSW incidents

These metrics suggest an emerging proactive reporting culture where potential issues are identified and addressed before they cause harm.

TONKIN + TAYLOR

#### SECTION 05

## DIVERSITY & INCLUSION: STRENGTH THROUGH DIFFERENCE

We're committed to transforming the traditionally homogeneous landscape of engineering and environmental consulting by creating an inclusive workplace that values diverse perspectives.

FORMAL COMMITMENTS
PRACTICAL ACTIONS

Our approach goes beyond rhetoric. As a signatory to the Diversity Agenda Accord, we've implemented concrete initiatives:

- Published our first Group Gender Pay Transparency Report
- Achieved Gender Tick accreditation
- Extended Paid Partner Leave to four weeks' full pay in New Zealand

BUILDING A DIVERSE TALENT PIPELINE

We're actively expanding diversity through strategic partnerships:

- Sponsoring groups like Rainbow Engineering and Women in Engineering
- Partnering with Pūhoro STEMM Academy to improve Māori youth engagement in STEM
- Supporting the Clontarf Foundation to create pathways for First Nations youth

A testament to these efforts is that 90% of our people believe we provide a workplace that is inclusive.

CULTURAL AWARENESS AND RECONCILIATION

Our commitment extends to understanding and respecting indigenous experiences:

- + Established Te Kāhui Ngao Matariki (Māori Leadership Team) in New Zealand
- Continued commitment to supporting reconciliation with our evolving RAP
- Provided cultural awareness training and resources for staff

By embracing diverse perspectives, we're not just creating a more equitable workplace — we're building a more innovative, resilient organisation.



# CREATING PATHWAYS WITH CLONTARF FOUNDATION

As part of our commitment to reconciliation and creating opportunities for historically underrepresented communities, our Australian team recently hosted 18 young Aboriginal and Torres Strait Islander students from Palmerston College in Darwin at our Melbourne office. The visit offered hands-on exposure to engineering careers and an insight into the built environment sector.

This initiative is part of our ongoing collaboration with the Clontarf Foundation, an organisation focused of improving education, life skills, and employment prospect for young First Nations men. To deepen our understanding of the Foundation's work, members of our Reconciliation Action Plan (RAP) Working Group also visited the Clontar Academy at St Patrick's College in Ballarat.

These connections support our broader goal to create meaningful pathways into our industry for First Nations beoples and other underrepresented groups, helping to build a more inclusive and diverse future for our sector.



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## INDUSTRY AWARDS: CELEBRATING EXCELLENCE AND INNOVATION

Recognition from peers and industry bodies provides valuable validation of our work and approach. In 2024, Tonkin + Taylor Group received numerous awards that highlight our technical excellence, collaborative ethos, and commitment to sustainable outcomes.

RECOGNITION AND ACHIEVEMENT

Our work on Te Ara o Te Ata – Mt Messenger Bypass Project earned particular distinction, receiving the Transportation Project of the Year award from the Environment Analyst Sustainability Delivery Awards. This international recognition, presented in Boston, USA, acknowledges the project's innovative approach to infrastructure development that respects and enhances the natural environment.

The same project also received the International Erosion Control Association's Environment Excellence Award and Civil Contractors New Zealand's Excellence in Onsite/Management Innovation Award, highlighting different facets of this multidimensional achievement. These recognitions reflect the project's successful integration of engineering excellence, environmental stewardship, and collaborative partnership with Ngāti Tama iwi.



STRENGTHENING VITAL ROUTES THROUGH RESILIENT DESIGN - SH25A

Our SH25A Taparahi Bridge project received an ACE Gold Award, Āpōpō (formerly IPWEA) Award and Infrastructure NZ's Building Nations Impact Award, recognising our team's rapid response and technical expertise in reconnecting Coromandel communities. The project, completed before the New Year holiday, demonstrated our ability to deliver crucial infrastructure under challenging conditions and tight timeframes.

Innovation in sustainability was celebrated when our Waiouru Landfill Closure Project was recognised as runner-up for the 2024 WasteMINZ award for Most Sustainable/Innovative Waste Disposal Initiative. This project, which achieved a 50% carbon saving compared to traditional imported clay capping, exemplifies our commitment to finding more environmentally sympathetic solutions.

In addition to these awards, Charlotte Arcus was named as this year's Young Stormwater Professional of the Year at the 2024 Stormwater Conference.

The diversity of our award recognition — spanning transportation, environmental management, innovation, and sustainability — reflects the breadth of our capabilities and

the integrated nature of our approach. It also validates our strategic focus on delivering outcomes that balance technical requirements with environmental and social considerations.

Beyond these specific achievements, we received recognition in other areas that reflect our organisational values. Our Rainbow inclusion efforts were celebrated at the 2024 Pride Pledge New Zealand Rainbow Excellence Awards, with our Technology + Futurity Specialist Josephine Graham receiving the Chorus Ambassadorship Award and Tonkin + Taylor Group receiving the ASB Emerging Award.

We were also named as finalists for several awards, including the NZAGE 2024 Industry Awards' Best Diversity and Inclusion Strategy category, highlighting our commitment to creating a workplace where everyone can thrive.

As we reflect on these achievements, we're mindful that awards aren't the end goal — they're indicators that we're moving in the right direction. The real measure of success is the positive impact our work has on communities, environments, and the clients we serve. Nevertheless, this recognition encourages us to continue pushing boundaries and seeking innovative solutions to complex challenges.

The strength of any consulting firm lies in the expertise and reputation of its people. In 2024, five of our professionals were recognised as Fellows by Engineering New Zealand, acknowledging their substantial contributions to engineering practice and the broader community.

- + ANDREW LANGBEIN
- + BEN CHESTER
- + BRUCE SYMMANS
- + JOHN LEEVES
- + PIERRE MALAN

+ JOHN DUDER,

an existing Fellow, was elevated to Distinguished Fellow.

+ MAXIM MILLEN

Awarded the prestigious Natural Hazards Commission Toka Tū Ake/NZSEE Ivan Skinner Award. These recognitions reflect not only individual achievement but also the depth of expertise within Tonkin + Taylor Group. They demonstrate our team's commitment to technical excellence, innovation, and giving back to the profession through mentorship and knowledge sharing.

Beyond formal recognition, our people contribute to advancing engineering practice through involvement in technical committees, industry working groups, and academic collaboration. This engagement ensures we remain at the forefront of evolving best practices while helping shape the future direction of our fields.

As we continue to invest in developing technical leaders, we're mindful that recognition is both an honour and a responsibility. Our Fellows and other senior specialists play crucial roles in guiding complex projects, mentoring emerging professionals, and ensuring our work consistently meets the highest standards of excellence and integrity.

Also in 2024, **STUART PALMER** was made a fellow of the New Zealand Society for Earthquake Engineering and **RHYS CLARK** was made a fellow of Chartered Accountants Australia New Zealand (CA ANZ).



TONKIN + TAYLOP

### CASE STUDIES

### SECTION



#### CASE STUDIES

Collective progress isn't without challenge. At Tonkin + Taylor Group we see that as an opportunity to reimagine what's possible - applying multi-specialist thinking that transforms complex problems into workable solutions.

TONKIN + TAYLOR CASE STUDIES SECTION

CASE STUDY

## BUILD-TO-RENT: REIMAGINING URBAN LIVING IN SYLVIA PARK



In the heart of Auckland, a revolutionary housing concept is reshaping how we think about community living. The Sylvia Park build-to-rent project isn't just constructing apartments – it's crafting a new social ecosystem.

#### THE VISION

- + ~300 apartments reimagining urban residential experience
- Located in a vibrant urban centre
- Designed to enhance community connectivity

#### SUSTAINABILITY IMPACT:

- Dense residential development
- Increased housing diversity
- + Enhanced community cohesion

#### **KEY HIGHLIGHTS:**

- + Proximity to transport hubs
- Integrated work-from-home spaces
- Community-focused amenities
- Affordable urban living solution

#### **SERVICES PROVIDED:**

- Conducted desktop study and site investigations for geotechnical and contaminated land
- + Performed assessment of effects on neighbouring structures for Resource Consenting purposes
- + Worked with structural engineer to design basement walls and building foundations
- + Prepared geotechnical specifications and monitoring plans
- Provided construction observation and completion reporting

"WE'RE NOT JUST BUILDING APARTMENTS, WE'RE CREATING A NEW WAY OF LIVING TOGETHER."

TONKIN + TAYLOR CASE STUDIES SECTION O

CASE STUDY

## TAIRĀWHITI DISTRIBUTED ENERGY: POWERING COMMUNITY POTENTIAL

#### **SERVICES PROVIDED:**

- Technical feasibility for design, deployment and management of solar energy systems and virtual power network
- + Expertise on achieving community and regional resilience through a distributed virtual electricity network

#### THREE CORE GOALS

- + Alleviating energy poverty
- + Building community resilience
- + Reducing regional carbon

#### BY TRAINING MANA WHENUA TO INSTALL AND MANAGE RENEWABLE INFRASTRUCTURE, THE PROJECT CREATES:

- Meaningful employment opportunities
- + Technical skills development
- + Economic independence
- + Climate resilience

#### THE VISION

+ Imagine a region where energy is something you create together. The Tairāwhiti Distributed Energy Project is turning that vision into reality, one house, marae and business rooftop at a time. Traditional energy models are top-down, centralised systems. Tairāwhiti is flipping the script, creating a "virtual power network" where energy is generated within the community, and distributed locally.

## "WE'RE GENERATING ENERGY - AND POSSIBILITY."



In Tairāwhiti, the Distributed Energy Project isn't just about installing solar panels – it's about reimagining how communities can take control of their energy future.

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TONKIN + TAYLOR CASE STUDIES SECTION C

CASE STUDY

## DAYLIGHTING OF TE AUAUNGA AWA WITHIN MOLLEY GREEN RESERVE: BREATHING LIFE INTO URBAN ECOLOGY



Our team transformed a hidden, piped stream into a living, breathing urban ecosystem. The Molley Green Stream project challenges traditional engineering practices by embracing nature's complexity.

#### THE APPROACH

- Worked with natural landscape dynamics
- + Challenged conventional engineering methods
- Prioritised ecological restoration

#### PROJECT INNOVATIONS:

- + Soft material integration
- + Adaptive design approach
- Collaborative construction methodology

## ENVIRONMENTAL OUTCOMES:

- + Stream renaturalisation
- + Habitat restoration
- + Flood resilience
- + Community green space creation

#### **SERVICES PROVIDED:**

- Provided ecology, civil,
   stormwater, geomorphology and geotechnical services
- Worked with Kāinga Ora and partners as part of the LEAD Alliance
- ├ Created flood detention basins (Ngā ipu o Waikōwhai)
- + Developed connecting pathways (Ara Hikoi) and community gathering areas
- Designed urban forest (Urban Ngahere) for local fauna and flora

"REIMAGINING OUR RELATIONSHIP WITH URBAN ECOSYSTEMS."

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TONKIN + TAYLOR

CASE STUDIES

**CASE STUDY** 

## PROTECTING WETLANDS: PRECISION ENVIRONMENTAL GUARDIANSHIP

#### THE CHALLENGE

A footbridge construction threatened to compromise a delicate wetland ecosystem in Aintree, Melbourne. The solution required precision, creativity, and deep environmental understanding.

## TECHNICAL INTERVENTION:

- Identified potential liner breach risks
- + Excavated around foundation piles
- Used specialised bentonite chips to prevent contamination

## POTENTIAL RISKS PREVENTED:

- Groundwater contamination
- Biodiversity disruption
- + Soil quality degradation

## ECOLOGICAL IMPLICATIONS

Wetlands are complex, interconnected ecosystems. A small breach could:

- + Harm aquatic life
- + Disrupt habitat networks
- + Impact long-term environmental resilience

## SERVICES PROVIDED:

- Provided construction phase services and earthworks supervision
- Conducted specialist geotechnical laboratory testing
- Developed methodology and supervised bentonite installation

A seemingly small intervention from Chadwick Geotechnics prevented potentially significant environmental damage. Their work on a wetland project demonstrates how meticulous engineering can be a critical tool in environmental protection.



TONKIN + TAYLOR CASE STUDIES SECTION 0

CASE STUDY

# WAIOURU LANDFILL CLOSURE: ENVIRONMENTALLY SYMPATHETIC WASTE MANAGEMENT

#### THE BREAKTHROUGH

- + First use of innovative capping geosynthetic in Aotearoa
- + Runner-up in WasteMINZ Sustainability Awards

#### **KEY INNOVATIONS:**

- + Cuspated sheet geocomposite drain cap achieving considerable carbon reduction compared to a traditional clay cap
- + Reduced carbon footprint

#### **SERVICES PROVIDED:**

- + Served as specialist design consultant for capping project
- + Developed sustainable and carbon-efficient capping solution

## "SUSTAINABILITY ISN'T ABOUT PERFECTION - IT'S ABOUT CONTINUOUS, THOUGHTFUL IMPROVEMENT."



The Waiouru Landfill Closure project demonstrates how innovative thinking can reduce environmental impact in traditionally carbon-intensive processes.

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TONKIN + TAYLOR CASE STUDIES

CASE STUDY

## HEALTHCARE SECTOR: NAVIGATING CLIMATE UNCERTAINTIES

#### **SERVICES PROVIDED:**

- Delivered workshops with sector leaders to identify key climate drivers
- + Co-developed three challenging climate scenarios in collaboration with the sector
- Launched the findings alongside the sector at our Auckland TTNZ office

#### PROJECT SIGNIFICANCE:

- + Sector-wide preparedness
- + Integrated indigenous perspectives
- + Proactive climate risk management

#### **UNIQUE ASPECTS:**

- + Dedicated Te Ao Māori roopu (sub-group)
- Explored both physical and transition related climate impacts
- Collaborative scenario development

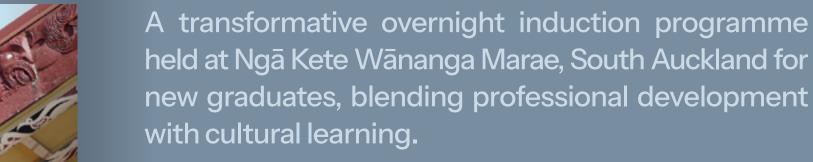
"OUR VISION IS FOR A SUSTAINABLE AND RESILIENT HEALTH SYSTEM THAT DELIVERS EQUITABLE HEALTH OUTCOMES." We designed and facilitated a scenario development process with New Zealand health sector stakeholders, involving multiple workshops with representatives including the Ministry of Health, Health New Zealand | Te Whatu Ora, and a range of healthcare and aged care providers. The project produced three scenarios exploring challenging future climate implications on health outcomes and the health system, which are intended to inform strategic planning and collective climate risk preparedness across the sector.



TONKIN + TAYLOR CASE STUDIES SECTION 06

CASE STUDY

# NOHO MARAE: A JOURNEY OF CULTURAL IMMERSION AND PROFESSIONAL GROWTH



#### **KEY ELEMENTS:**

- Pōwhiri (traditional welcome)
- + Insights into company purpose and values
- + Cultural competency development
- Professional orientation

## KEY AREAS OF REFLECTION:

- + Meaningful cultural integration
- + Holistic professional development
- + Respecting indigenous knowledge
- + Creating inclusive workplace environments

#### **SERVICES PROVIDED:**

- + Heightened understanding of tikanga and principles to support iwi and client engagement
- Strengthened cross-team and discipline connection, stronger relationships deliver better outcomes for our clients
- Clarity of our position and commitment to celebrating and reflecting cultural diversity in our project delivery

#### **LEARNING HIGHLIGHTS:**

- ├ Introduction to Tikanga Māori
- + Company vision and sustainability approach
- + Networking and team building
- + Professional expectations and opportunities



"CULTURAL UNDERSTANDING IS FUNDAMENTAL TO OUR WORK AND OUR IDENTITY."

**CASE STUDY** 

## ARA TŪHONO - PUHOI TO WARKWORTH **MOTORWAY:** BALANCING INFRASTRUCTURE WITH ECOLOGY



The Ara Tuhono Motorway represents a significant achievement in balancing essential infrastructure development with environmental protection. This project has improved the critical transport corridor between Auckland and Northland while carefully preserving the natural ecosystems it passes through.

#### THE VISION

The Puhoi to Warkworth Motorway combines engineering excellence with environmental stewardship through thoughtful design and careful implementation. The project team prioritised both transport efficiency and ecological protection from the earliest planning stages.

The approach delivers multiple benefits:

- Enhanced transport reliability
- Protected and restored natural habitats
- Improved safety and economic connectivity
- Minimal disruption to sensitive ecosystems

#### **PROJECT SNAPSHOT:**

#### **SERVICES PROVIDED:**

- · 18.5-kilometre four-lane motorway
- Seven bridges spanning valleys and waterways
- Comprehensive ecological protection measures
- Award-winning environmental management
- Design services delivered as an integrated JV with Beca Ltd
- PPP Project delivered to NZTA by NX2. Immediate client was construction joint venture of FLETCHER and ACCIONA

- Conducted geological site investigation and geological modelling
  - Designed geotechnical solutions for earthworks embankments
- Developed stabilisation measures for rock cuts
- Designed stormwater systems and
- Managed ecological relocation of fish, koura and freshwater mussels

#### THREE CORE ACHIEVEMENTS:

- + Relocation of 31 native fish species and 5,000 koura
- International recognition for erosion and sediment
- Balance between infrastructure needs and ecological protection

"CREATING INFRASTRUCTURE THAT NOT ONLY CONNECTS COMMUNITIES BUT PROTECTS THE ENVIRONMENTS THEY CHERISH."

CASE STUDY

## SH25A TAPARAHI BRIDGE: RECONNECTING COMMUNITIES AT RECORD SPEED



In the Coromandel Peninsula, a vital transport link has been reborn through innovative engineering. The SH25A Taparahi Bridge project isn't just infrastructure — it's a lifeline reconnecting divided communities.

#### THE VISION

THAT DEPEND

ON EACH

OTHER."

- A 124-metre three-span steel and concrete composite bridge
- + Delivered in just 7 months instead of 2+ years
- + Designed to withstand future extreme weather events

#### **KEY HIGHLIGHTS**

- + Parallel design and construction approach
- Early design "freeze points" to expedite construction
- weather dependency
- Three months ahead of schedule completion

#### SUSTAINABILITY IMPACT

- Restored critical community connections
- Revitalised regional tourism economy
- Enhanced infrastructure resilience
- 100-year service life design

#### **SERVICES PROVIDED:**

- Provided design management, geotechnical and
- Implemented parallel design and construction
- Adapted existing designs for materials availability
- Delivered design as separate sub-packages
- Developed multiple design scenarios to mitigate programme risk

TONKIN + TAYLOR CASE STUDIES SECTION C

CASE STUDY

## BRIDGEWATER BRIDGE: TASMANIA

The project demonstrates Tonkin + Taylor's experience in managing large-scale geotechnical investigation in complex geological environments. Our approach to foundation design has applications beyond this project, particularly for marine and offshore construction where similar challenges are encountered.

## KEY PROJECT INFORMATION:

- + Owner: Department of State Growth, Tasmania
- + Client: McConnell Dowell
- + Location: Hobart, Tasmania
- + Date: 2021-current
- + Contract Type: Design and Construct (D&C)

#### **SERVICES PROVIDED:**

- + Served as lead geotechnical designer for Tasmania's largest transportation infrastructure project
- Designed large-diameter (2.4m) bored piles for bridge foundation in complex geology
- Developed site-specific methodologies for each pile with advanced testing technologies
- Implemented soil/rock cuttings, soil nailing, shotcreting and retaining walls

#### KEY ACHIEVEMENTS:

- Successfully designed foundations in one of Australia's most complex geological environments
- Employed 3D geological modelling
  (LeapFrog) and extensive finite element
  analysis
- Utilised advanced testing technologies including bi-directional O-cell tests, crosshole sonic logging, and SHAPE
- Demonstrated proactive leadership in navigating challenging ground conditions
- + Made critical decisions to address unforeseen geological variations while maintaining compliance with project specifications

The Bridgewater Bridge represents the largest transportation infrastructure project in Tasmania's history. This \$786 million AUD initiative involves a new 1.28km bridge over the River Derwent, new road interchanges, an underpass, a single-span overpass, and associated road infrastructure.



"WE DESIGNED FOUNDATIONS
IN ONE OF AUSTRALIA'S
MOST COMPLEX GEOLOGICAL
ENVIRONMENTS."

