

**CLIMATE CHANGE
AND SUSTAINABILITY
DISCLOSURE**



NGĀTI WHĀTUA ŌRĀKEI
WHAI RAWA LIMITED



Our mātāpono guide us in all that we do as a business. In particular, kaitiakitanga and rangatiratanga inform our commitment to identifying and proactively managing climate and environmental related risks and opportunities in connection with our business operations and the fulfilment of our purpose.

We consistently apply a long-term intergenerational lens to our decision-making and business activities, as we strive to protect our people, our lands, our resources, and our taonga.

This document summarises our approach and our intention to be climate risk leaders.

The Global Climate Challenge

Climate change is recognised as one of the most significant challenges of our time. From shifting weather patterns that threaten supplies of fresh water and food, to rising sea levels that increase the risk of severe flooding, the consequences of climate change are global in scope and unprecedented in scale. Without urgent action today, adapting to these impacts in the future will be more difficult.

Aotearoa has put in place legislation under the Climate Change Response (Zero Carbon) Amendment Act 2019, to provide a framework by which the country can develop and implement clear and stable climate change policies. This legislation contributes to the global effort under the Paris Agreement to limit the global temperature increase to 1.5°C above preindustrial levels and sets a new domestic greenhouse gas emission reduction target for Aotearoa of net zero by 2050. In May 2022, the government released Aotearoa’s first emissions reduction plan. The plan contains strategies, policies and actions which will contribute to global efforts to limit global temperature rise to 1.5°C above pre-industrialised levels.

In addition, the New Zealand Government legislation requires the financial sector and issuers of capital on the NZX from 2023 to release an annual disclosure of climate risks and opportunities using the Task Force on Climate-related Financial Disclosures (TCFD) recommendations as a framework. The External Reporting Board (XRB) issued climate-related disclosure standards in response to this legislation in December 2022. The standards contain the climate-related disclosure requirements for each of the of the four thematic areas (Governance, Strategy, Risk Management and Metrics and Targets). While Ngāti Whātua Ōrākei Whai Rawa (Whai Rawa) is not legally required to report, we have chosen to do so to evidence our commitment to making a positive contribution to the global climate challenge. This is our third such report.

Governance

1. Board’s oversight of climate related risks and opportunities

Whai Rawa’s Board of Directors is responsible for governance and oversight of Whai Rawa’s risks and recognises the importance of proactively identifying and managing our risks and opportunities, including those in relation to climate change.

Climate risk has been assessed as one of Whai Rawa’s primary risks, and it is captured in our Enterprise Risk Profile. The Board receive monthly updates on the risks posed by climate change and in particular the potential short -medium- and long-term impact of a sea level raise on the Te Tōangaroa precinct. The Board also receive climate and sustainability updates which detail progress against outlined emission reduction targets, new areas of focus and completed initiatives.

Specific climate-related objectives and targets have been identified in our Annual Plan and the Board are kept across the progress made through reporting against strategic objectives and Key Performance Indicators (KPIs) in the Annual Plan.

2. Management’s role in assessing and managing climate-related risks and opportunities

Whai Rawa’s Risk Committee is a monthly subcommittee of the Board that consists of senior members of Whai Rawa’s management team. Climate risk and climate related initiatives and targets are discussed at this committee and matters of relevance, including resourcing and expertise required, are elevated to the Whai Rawa Board. Senior management are responsible for managing the emission reduction initiatives relevant to their division.

Ngāti Whātua Ōrākei Group Climate Change Working Group

A climate change working group, comprised of representatives of the different entities in the Ngāti Whātua Ōrākei Group, was established in 2022. The working group developed a group Foundational Climate Position Statement (Hā Tuamatangi), which has been approved by the Ngāti Whātua Orakei Trust Board, which acknowledges the global environmental crisis and the need for immediate and deep emissions reductions. The statement sets a group aim to be net zero across organisational operations by 2030 and over time to aspire to draw down more emissions than produced.

Strategy and Risk Management

1. The intersection of strategy and risk management

Whai Rawa’s impact assessment framework, Te Tātua was developed to understand the potential impacts and consequences of our decision-making and activities, and to assist when potential opportunities or courses of action are being considered.

Two of the categories of Te Tātua are environmental impacts and sustainability goals. The practical application of this framework ensures that climate and environment-related risks, opportunities and impacts are front of mind, and factored into, our strategic planning, decision-making and day-to-day operations. The application of Te Tātua also provides a unique opportunity for management and the Board to transparently assess, weigh and balance often competing priorities, as well as enabling enhanced insight into the various factors at play over and above a typical cost/benefit analysis (where cost is not limited to financial cost but extends to environmental and social costs and impacts).

Whai Rawa’s strategy with regards to climate change will be consistent with seven major areas where Ngāti Whātua Ōrākei can lead in the restoration of mauri of te taiao through climate action, as determined by the group climate change working group, namely:

- › Protect intact and functional ecosystems and biodiversity in the rohe.
- › Reduce transport use and emissions.
- › Reduce emissions related to energy and gas use.
- › Investing in initiatives related to kai production.
- › Effective management of our assets and land holdings to reduce risk and reduce emissions.

- › Support healthy, energy efficient and affordable homes for whānau.
- › Develop a resilient water access scheme and effectively manage wastewater at the papa kāinga.

A 2023-2024 Climate Action Plan has been developed for the Ngāti Whātua Orakei Group containing actions that will focus programmes toward achieving these objectives.

2. Identifying our climate related risks and opportunities

An initial climate risk assessment of our business was done in 2021 which involved climate risk modelling for key Whai Rawa assets, and a qualitative assessment in relation to other physical and transitional risks for which modelling was not available.

In addition to quantitative scenario modelling, qualitative assessments were also undertaken in 2021 in relation to identified climate-related risks and opportunities in connection with access to capital, insurability, tenancy and revenue risk, coastal erosion, and storms. Transitional risks such as climate change policy and regulation, increasing costs of supporting infrastructure, and speed of action, were also assessed.

Te Tōangaroa Risk Assessment

The outputs from our initial climate risk assessment demonstrated that our landholdings at Te Tōangaroa are most at risk from the effects of climate change, given the asset's proximity to the Tāmaki Makaurau coastline.

During FY23 Whai Rawa engaged professional advisors to prepare a report on the risks related to the sea level rising in the Te Tōangaroa precinct. An updated assessment was also prepared following the extreme rainfall experienced in Auckland on 27 January 2023 which caused widespread flooding and landslips.

The report was prepared using topographical information obtained from Council LiDAR captured between 2016 and 2018, and the building footprints from LINZ. Sea level rise information was based on the latest Intergovernmental

Panel on Climate Change findings (called IPCC AR6) for a range of scenarios out to 2150. This includes more explicit consideration of vertical land movement which has now been included in the Ministry for Environment interim guidance (i.e., MfE, 2022) to give relative sea level rise (i.e., sea level rise plus the change in land movement). Four scenarios were considered for the three timeframes, i.e., 0.2, 0.5, 1.0 and 1.5 m. These were added to the present day Highest Astronomic Tide (HAT) and to the 1%AEP (Annual Exceedance Probability) storm tide to provide an understanding of permanent sea level rise (i.e., what will be tidal) and the effect of sea level rise on storm tides, in the short (0 – 20 years), medium (20 – 60 years), and long term (60 – 100+ years).

Report findings

The assessment indicated that coastal inundation within the precinct is unlikely to be a concern in the short to medium term (20 - 60 years). Nevertheless, raised sea levels, due both from climate change and storm surge, could increase the frequency and extent of rainfall flood events with the higher sea levels reducing the outflow of stormwater to the sea. This means that rainfall induced flooding may occur more frequently in the short to medium term, particularly affecting the lower lying areas within the precinct.

Short term action has involved confirming the floor levels and basement entry levels of our buildings and comparing these to the projected sea level changes determined by our advisors. Initial indications are that our buildings are not at risk of flooding in the long term (60 - 100 years), even when considering the inundation levels of the most extreme scenarios. However, further consideration is to be given to the impact of rising ground water levels and where buildings are found to be potentially vulnerable in this regard, then the condition of the buildings below projected levels will be inspected for water ingress pathways.

A plan is to be developed for future adaption responses which will include adaption thresholds (unacceptable consequences), signals (indicators) and associated triggers (decision making points).

Certification and Sustainability Initiatives

Whai Rawa was first Toitū certified in December 2021 under the Toitū carbonreduce programme. This certification covered the 2021 reporting year and produced an initial emissions baseline against which a proactive reduction plan was established.

Whai Rawa again achieved Toitū certification under the carbonreduce programme in July 2023 for the 2022 reporting year. However, for this year we have had to comply with the revised ISO standard for quantification and reporting of greenhouse gas emissions (ISO14064-1:2018). This standard takes a broader (full value chain) view of the emissions an organisation must consider as part of its responsibility and consequently our total recognised emissions for 2022 have increased considerably (from 330 tCO₂-e in 2021 to 3583 tCO₂-e in 2022). As a result of this Toitū approved our request to reset our emissions base year from 2021 to 2022 to allow meaningful target setting and comparison between reporting years going forward.

Our emissions targets to date have been centred around emissions arising from Eastcliffe Retirement Village and the Whai Rawa office. This will however change as we include and refine our calculation of other material sources of emissions (scope 3) such as those arising from development activities, our commercial building (AECOM House) and our residential property stock. Our largest source of scope 3 emissions arises from development activities and as such our development team aims to include sustainable initiatives when completing designs and will work with our development suppliers to reduce emissions and waste at our development sites.

We have set short term goals (3-year goals) of reducing our total carbon emissions from electricity, gas, water, and waste by 10% from our base year measurements (2022). By 2031, we aim to have decreased our total carbon emissions by 25% from our base year reading. Keeping in line with the Paris Agreement and the Climate Change Response Amendment Act 2019, it is our mission to be carbon-zero by 2050 at the latest. Thereby ensuring Whai Rawa meets national and international standards.

Climate Risks

Physical climate risks	Risk Statement	Strategic and financial impacts/insight
Coastal inundation	Increased frequency and severity of inundated buildings due to a combination of sea level rise, tides, and storms.	Te Tōangaroa is Whai Rawa's main asset at risk of the effects of climate change, given its proximity to the coast and the fact that it is reclaimed land. We are working with an external expert to understand the risks involved so that long-term decision making, strategy setting and financial planning for Te Tōangaroa can be completed.
Dependency risk	Risk of disruption in transport, energy, communications, and other lifeline services impacting the operation and usability of assets.	We recognise that the adoption of sustainable practices and solutions can act as both a mitigant to climate-related risks, and an opportunity to positively contribute to climate-related impacts. To this end, we are committed to the identification and assessment of potential opportunities for Te Tōangaroa, including identifying best practice solutions and building management systems, energy monitoring systems, installation of EV charging stations, solar solutions, transport planning, and installation of end of trip facilities, to name a few. We will continue to demonstrate reductions in waste management for Whai Rawa owned buildings at Te Tōangaroa and are committed to ensuring that these buildings remain green rated and are operated and managed accordingly.
Loss of building function due to heat, based on a 25°C threshold	Increased average temperatures threaten the ability for buildings to maintain acceptable levels of operation for safe occupation.	Tenancy and revenue risks arise from the potential risk of coastal inundation and erosion on the Tāmaki Makaurau waterfront. Given the nature of land and building ownership at Te Tōangaroa, including the dispersed responsibilities for maintaining public spaces, we recognise that there is a high degree of stakeholder dependency (including local and central government) on our ability to mitigate Te Tōangaroa's climate-related risks and maximise potential opportunities. This stakeholder dependency is in itself a risk for Whai Rawa.
Tenancy and revenue risk	The potential for physical climate impacts and/or secondary effects (access, energy, water, or food insecurity, etc.) to reduce demand for tenancies and revenues.	All development opportunities undergo robust risk assessments at the acquisition and design stages, to determine best practice strategies to mitigate environmental-related risks, both in relation to the development itself and the resultant build. We engage relevant experts throughout the process to ensure the development is designed in a robust and sustainable way and to fully understand the land and surrounding area upon which the development is constructed.
Coastal erosion	Rising sea level and changes in storm frequency and intensity accelerating erosion of beaches, estuarine shores and cliffs threatening the structural integrity and safety of nearby buildings.	We recognise the uncertainties surrounding the extent of climate change. This requires that our financial modelling and planning takes the potential effects and impacts of climate change into account. We will continue to assess potential opportunities to account for medium and long-term climate change impacts, strategies and mitigants.
Access to capital (debt and equity)	The risk that lenders downgrade their valuation or investment in coastal land assets, due to impairments (real or perceived) resulting from climate change.	
Insurability	The potential for physical climate impacts to render buildings uninsurable.	

Climate Risks

Transition climate risks	Risk Statement	Strategic and financial impacts/ insight
Climate change policy and regulation	Aotearoa expects increasingly heavy-handed policies to address climate change. This includes increased costs to comply with climate-resilient building codes and regulations.	Whai Rawa has achieved Toitū certification under the carbonreduce programme for the 2022 reporting year. For the 2022 reporting year we have had to comply with the revised ISO standard for quantification and reporting of greenhouse gas emissions (ISO14064-1:2018). This standard takes a broader (full value chain) view of the emissions an organisation must consider as part of its responsibility.
Increasing costs of supporting infrastructure	Aotearoa expects increasing costs of carbon-intense energy sources. Market demands for alternative fuel, energy and transport systems require significant upgrades to properties and supporting infrastructure.	In line with the new standard we have now included and are refining our calculation of other material emission sources (scope 3) such as those arising from development activities, our commercial building (AECOM House) and our residential property stock. This is where our emissions reductions will be focused over the longer term. We have undertaken steps to switch to alternative energy sources for various of our sites and will continue to be proactive in this regard. We will continue to demonstrate Kaitiakitanga and Rangatiratanga, as we strive to raise awareness, influence and effect positive change related to climate change.

Metrics And Targets

In partnership with Toitū, we have outlined key emissions reduction goals.

We are closely monitoring existing energy use where invoices are reviewed monthly, and data is entered in to the Toitū system for monitoring short term specific goals agreed in our Emissions Management and Reduction Plan, as well as our long-term carbon emission reduction targets which are as follows:

Total Emissions (Toitū Certified 2022)

Category	tCO ₂ -e (2022 base year)
Scope 1	203.48
Scope 2 (market-based method)	25.30
Scope 3	3354.68
Total	3583.46

10%

Due – Mid 2025

25%

Due – Mid 2031

**Carbon
Zero**

Due – Mid 2050

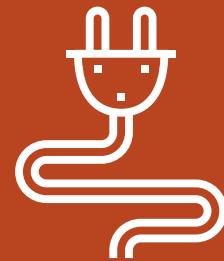
CARBON FREE FUTURE IS OUR GOAL

Our group level emissions targets are more ambitious, so these targets will be seen as minimum.

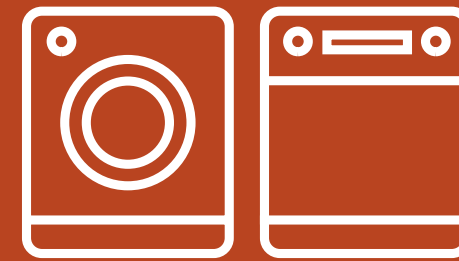
In part, we plan to achieve these goals through engaging suppliers who have proven sustainable operations in place, upgrading machinery to energy efficient options, and improving sourcing across Whai Rawa. Planned initiatives to advance these outcomes include the following:



Engage external recycling service provider to take over waste management for Eastcliffe facility.



Analysis is being done to consider upgrading the existing boilers at Eastcliffe to electric options.



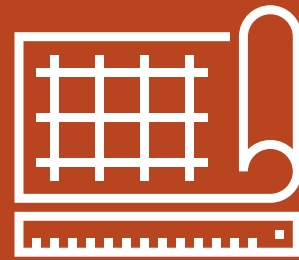
Replacing existing appliances at Eastcliffe with new models to better improve energy efficiency.



The residential team will continue delivering on their specific sustainability commitments and initiatives.



Phasing out gas to improve the NABERs star rating for AECOM house.



Our development team aims to keep in line with healthy home standards, include sustainable initiatives when completing designs, and ensure minimal waste and emissions at their sites.



Consider initiatives such as rubbish collection and recycling, rainwater collection and EV chargers to improve the NABERs star rating for AECOM house.



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