

Te Pūrongo ā-Tau a te Puka Here Kākāriki

Green Bond Annual Report

2023/2024





Ngā ihirangi

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He kupu mai i te Tumu Whakarae

From the CEO

As Tāmaki Makaurau Auckland continues to recover from the extreme weather events of 2023, and navigate ongoing economic shocks, our focus has shifted to prioritising the region’s physical and financial resilience. In June 2024, we adopted our Long-Term Plan 2024-2034 (10-year budget), making tough trade-offs to ensure the Auckland Council Group (the group) is resourced to deliver the services and programmes that Aucklanders need most. Despite our financial challenges, 13 per cent of our planned investment in infrastructure aligns with our emissions reduction targets and 38 per cent aligns with the group’s targets of increasing infrastructure resilience. We remain committed to our sustainable finance programme which will be an integral part of how we fund our capital investment over the next 10 years.

Our commitment to sustainable finance is reflected in the continued growth of our green bond programme. In the financial year 2024, we issued three new green bonds, increasing our total green bonds outstanding to NZ\$3.7 billion. This includes a benchmark EUR \$600 million green bond issued in March 2024.

Outside our 10-year budget, the group is exploring additional cost-effective solutions to halve its greenhouse gas emissions by 2030 and how these solutions can be funded through sustainable finance products such as green bonds and sustainability-linked financial products.

This year, we reset the Sustainable Performance Targets used in our existing sustainability-linked financial products and identified a potential fourth Key Performance Indicator. More details can be found in our **Sustainable Finance Framework**.

We also released our first climate statement prepared in accordance with the requirements of the Financial Markets Conduct Act 2013, which includes information on how climate-related risks and opportunities are managed across our organisation. **Read this report here**.

As we continue to recover from the 2023 extreme weather events and manage ongoing financial challenges, we remain committed to do as much as we can to reduce our greenhouse gas emissions and build our financial and physical resilience, and how we fund this work has an important role to play.

Thank you for your ongoing support.



Phil Wilson
Chief Executive



Kupu whakataki

Introduction

Auckland Council is the territorial authority for the Auckland region, responsible for enabling democratic local decision-making and action, by and on behalf of communities. This includes promoting the social, economic, environmental and cultural well-being of Auckland communities.

The Auckland Council Group (the council) is made up of Auckland Council, Port of Auckland Limited (POAL) and the five substantive council-controlled organisations (CCOs), being Auckland Transport, Watercare Services Limited (Watercare), Eke Panuku Development Auckland Limited, Tātaki Auckland Unlimited Limited and Tātaki Auckland Unlimited Trust. Auckland Council is responsible for funding the CCOs and POAL. In accordance with the recently enacted Local Government (Water Services Preliminary Arrangements) Act 2024, the council will no longer fund Watercare from 1 July 2025.

The group's vision for how Auckland will grow over the next 30 years is outlined in the **Auckland Plan 2050** which responds to the three major challenges facing the region:

- population growth and its varied implications
- sharing the benefits of growth equally among all Aucklanders
- reducing environmental degradation.

Auckland Council has plans and strategies to support the delivery of the Auckland Plan 2050, including **Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan**, our regional response to climate change. The plan has two core goals:

- reduce greenhouse gas (GHG) emissions by 50 per cent by 2030 and achieve net zero emissions by 2050
- adapt to the impacts of climate change by ensuring we plan for the changes we face under our current emissions pathway.

The council (excluding POAL) has adopted a target to halve operational GHG emissions by 2030 and is committed to building the group's resilience to climate change to ensure we are in the best position to support the region's transition to a net-zero, climate resilient state by 2050.

In this report, you will find a detailed update of our green bond activities, use of proceeds and impact reporting for our eligible assets, covering the 12-month period from 1 July 2023 to 30 June 2024.

Auckland Council has received programmatic certification under the Climate Bonds Initiative's Climate Bonds Standard Version 3.0 and an annual review of its use of proceeds.





Tā mātou hīkoi ā-tahua pūtea tokonga roa

Our sustainable finance journey

- Auckland joins the **C40 Cities** Climate Leadership Group. C40 membership enhances and resources Auckland’s ability to work with and learn from leading cities facing similar climate challenges around the globe.

- April: Auckland Council establishes its **Green Bond Framework** (changed in 2020 to a Sustainable Finance Framework).
- June: Auckland Council issues its first green bond, raising NZ\$200 million to fund electric trains and associated infrastructure.

- July: Auckland Council adopts **Te Tāruke-ā-Tāwhiri: Auckland’s Climate Plan**.
- September: The Auckland Council Group issues NZ\$500 million of unsubordinated 30-year fixed rate green bond.
- Auckland Council Group publishes its inaugural **Climate Risk Disclosure**.

- August: Auckland Council becomes a signatory to the **C40 Divest/Invest** declaration.
- November: **Te Tāruke-ā-Tāwhiri: Auckland’s Climate Plan: Progress report** is released.
- Auckland Council issues its first foreign currency denominated green bond of EUR 500 million 10-year fixed rate bond.

- July: Auckland Council’s first reporting year against its sustainability-linked loan and derivative sustainable performance targets.

2015

2018

2020

2021

2023

2016

2019

2022

2024

- Auckland signs the Paris Pledge for Action in support of the objectives in the **Paris Agreement** to limit global temperature rise to less than 2 degrees Celsius and raise ambition before the agreement takes effect in 2020.

- Auckland Council becomes a founding member of the **Aotearoa Circle’s Sustainable Finance Forum**.
- June: Auckland Council publishes its first **Annual Green Bond Report**.
- Auckland declares a **Climate Emergency** which includes the requirement to include climate impact statements in all Auckland Council committee reports.

- February: Auckland Council executes its first **Sustainability-linked loan and derivative**.
- June: Auckland Council adopts its first **Climate Action Targeted Rate**.

- March: Auckland Council issues a \$600 million Benchmark Euro Green Bond.
- September: The Auckland Council Group released its first **Climate Statement** prepared in accordance with the requirements of the Financial Markets Conduct Act 2013.

Te whakamahi i ngā moni whiwhi

Use of proceeds

The council has allocated proceeds of the green bonds to financing planned projects and assets with positive environmental, social and cultural outcomes which conform to the eligibility criteria (see eligible assets table – **Appendix 2**), or to refinancing corporate debt that supports eligible assets. The proceeds of green bonds have been allocated across several eligible sectors described in our Sustainable Finance Framework. The eligible assets have been mapped against the relevant United Nations Sustainable Development Goals (UN SDGs) and priority areas in

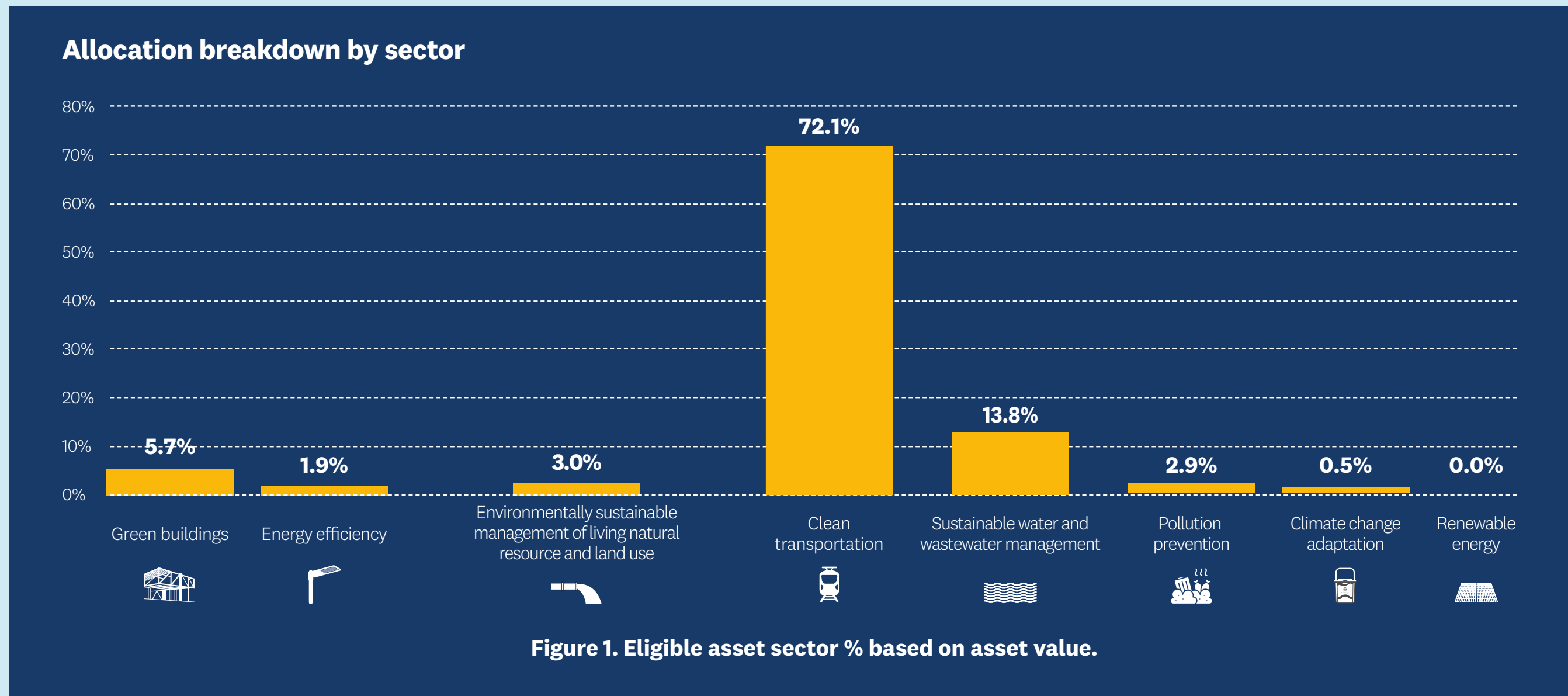
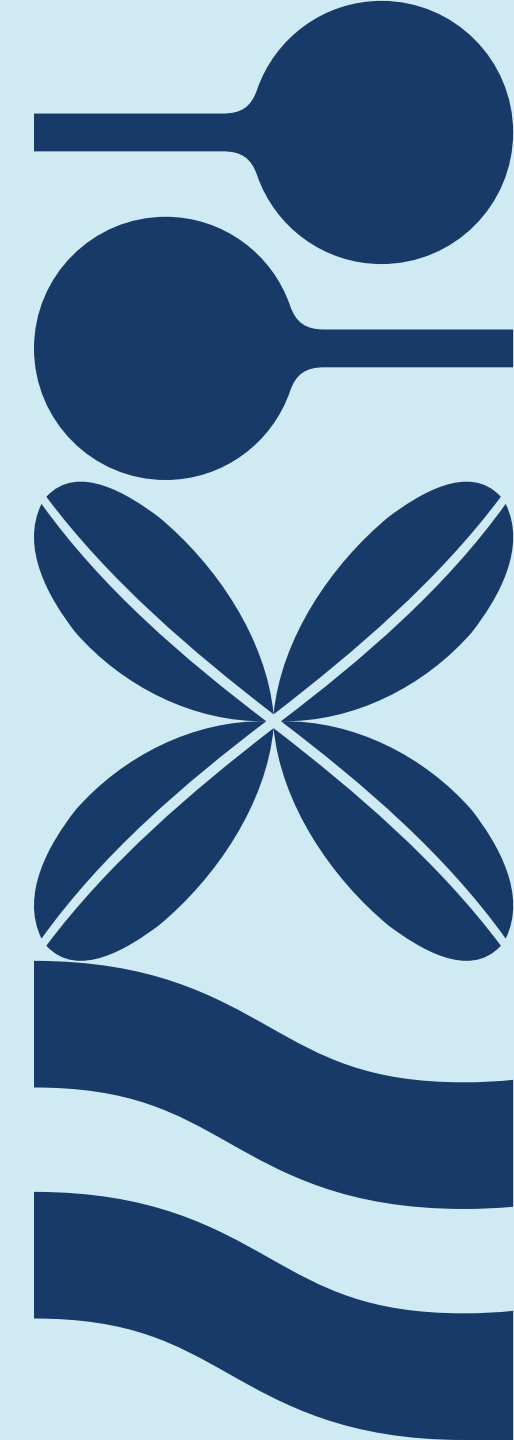
Te Tāruke-ā-Tāwhiri: Auckland’s Climate Plan. See **Appendix 2.**

Sustainalytics conducted a use of proceeds review against council’s Sustainable Finance Framework and issued an annual review.

See **Appendix 3.**

For more information, see

Auckland Council’s Sustainable Finance Framework.



Te uaratanga o ngā puka here kākāriki i te wā ka puta

Value of green bonds on issue

The total value of Auckland Council's green bond eligible assets at 30 June 2024 was NZ\$4,208 million. The outstanding green bonds of NZ\$3,694 million represents 87.8 per cent of the council's eligible assets.

Date of issue	Maturity date	Term	Bond details	Use of proceeds	Bond face value (NZ\$m equivalent)
10 July 2019	10 July 2025	6 years	CBI certified, 2.013% unsubordinated, fixed-rate retail bond in NZ\$	Refinancing	150
28 September 2020	28 September 2050	30 years	2.95% unsubordinated, fixed-rate retail bond in NZ\$	Refinancing/New projects and assets	500
20 October 2021	20 October 2027	6 years	2.411% unsubordinated, fixed-rate retail bond in NZ\$	Refinancing/New projects and assets	300
17 November 2021	17 November 2031	10 years	CBI certified, 0.25% unsubordinated, fixed-rate bond of EUR 500 million	Refinancing/New projects and assets	808
18 October 2022	18 October 2027	5 years	CBI certified, 1.660% unsubordinated, fixed-rate bond of CHF 100 million	Refinancing/New projects and assets	179
18 October 2022	18 October 2032	10 years	CBI certified, 2.005% unsubordinated, fixed-rate bond of CHF 100 million	Refinancing/New projects and assets	179
27 September 2023	27 September 2028	5 years	5.734% unsubordinated, fixed-rate retail bond in NZ\$	Refinancing	300
30 November 2023	30 November 2029	6 years	1.560% unsubordinated fixed-rate bond of CHF 115 million	Refinancing	215
18 March 2024	18 March 2034	10 years	3.000% unsubordinated fixed-rate bond of EUR 600 million	Refinancing	1,063
Total					3,694

Te whakaū i tā mātou tohatoha o ngā moni whiwhi me te takoha taurite a ngā puka here kākāriki

Confirmation of our allocation of proceeds

CBI certified bonds and eligible assets		Total (incl. CBI bonds and assets)
Total green bonds outstanding (NZ\$m equivalent)	1,315	3,694
Total eligible asset value (NZ\$m)	3,024	4,208
Total green bonds outstanding to eligible assets	43.5%	87.8%

The council confirms that the value of the eligible assets is greater than the face value of the green bonds outstanding and there are no unallocated proceeds.

The council confirms that the CBI certified bonds issued are aligned with the Climate Bonds Standard and that the nominated projects and assets continue to meet the relevant eligibility requirements specified in Part C of the CBS.



Te tirohanga whānui o te kaupapa puka here kākāriki

Overview of green bond issues

During the 2024 financial year, Auckland Council issued three green bonds totalling NZ\$1,578 million. This included a benchmark EUR \$600 million green bond, listed on the SGX Singapore Exchange.

Key terms of the three new green bonds issued in financial year 2024 are shown in the table below.

Bond name	NZ\$ 300 million, 5-year green bond	CHF 115 million, 6-year green bond	EUR 600 million, 10-year green bond
Issue rating	AA (S&P Global Ratings) / Aa2 (Moody's Investor Services)	AA (S&P Global Ratings) / Aa2 (Moody's Investor Services)	AA (S&P Global Ratings) / Aa2 (Moody's Investor Services)
Instrument	Medium Term Notes, Secured, pari passu	Medium Term Notes, Secured, pari passu	Medium Term Notes, Secured, pari passu
Tenor	5 years	6 years	10 years
Issue date	27 September 2023	30 November 2023	18 March 2024
Maturity date	27 September 2028	30 November 2029	18 March 2034
Issue amount	NZ\$ 300 million	CHF 115 million (NZ\$ 215m)	EUR 600 million (NZ\$ 1,063m)
Coupon	5.734 per cent, per annum	1.560 per cent, per annum	3.000 per cent, per annum
ISN	NZAKCDT595C8	CH1305916749	XS2784364973
Listing	NZX New Zealand Exchange	SIX Swiss Exchange	SGX Singapore Exchange



Te pāpātanga i ā tātou pānga rawa kākāriki

Impact of our green bonds

Funds raised through green bonds to date have been used to finance and refinance debt that funded assets such as the rehabilitation of Puketutu Island, Central Rail Link, water and wastewater infrastructure, and pollution prevention and control assets to promote a circular economy in Auckland. The impact assessment below details the assets' contribution towards reducing GHG emissions and achieving broader benefits. We have used appropriate metrics for each category where the measurement for GHG emissions is not applicable.

Te whakarāpopoto mō ngā rawa me ngā ine matua

Summary of assets and key measurements

Tūnuku parakore

Clean transportation

Auckland's public cycleway network

Increasing accessibility and safety for people on bicycles.

Measure: 2.9 ktCO₂-e avoided.

Asset value:

\$188.1m



Electric trains

Switching Auckland's train fleet from diesel to electric.

Measure: 22,984 tCO₂-e reduced in financial year 2024 (relative to projected baseline for 2024).

Asset value:

\$530.7m



Wiri Electric Train Depot

Maintenance and stabling facility for electric trains.

Benefit: Ensures smooth operation of the electric trains in the network.

Asset value:

\$68.5m



Te whakarāpopoto mō ngā rawa me ngā ine matua (e haere tonu ana) **Summary of assets and key measurements** (continued)

Tūnuku parakore (e haere tonu ana) **Clean transportation (continued)**

City Rail Link (CRL)

Underground rail link enabling Auckland’s rail network to double in capacity.



Measure: Projected carbon reductions:

- Embodied carbon (as-built whole of life): **27,522 tCO₂e (13 per cent)**
- Construction energy: **6,968 tCO₂e (22 per cent)**
- Annual operational energy for the stations, tunnels and streetscape: **296 tCO₂e (22 per cent)**

Asset value:

\$2,237.1m

Manukau Bus Station

A south Auckland major public transport exchange.

Benefit: Increased public transport patronage by improving frequency, quality and reliability of buses.

Asset value:

\$11.4m



Te whakarāpopoto mō ngā rawa me ngā ine matua (e haere tonu ana)

Summary of assets and key measurements (continued)

Te whāomotanga pūngao Energy efficiency

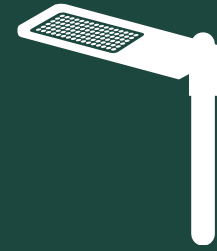
LED streetlights

Reducing energy consumption and providing safer environments.

Measure: 3,171 tCO₂e reduced in financial year 2024 (relative to baseline 2015).

Asset value:

\$81.8m



Te pūngao whakahou Renewable energy

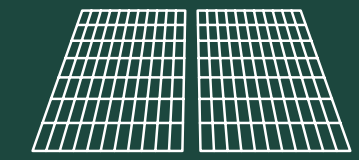
Rosedale floating solar array

Floating solar panels, generating clean energy.

Measure: 98.4 tCO₂e reduced.

Asset value:

\$2.1m



Whare kārīki Green buildings

Te Manawa – Westgate Community Building

Fully integrated community hub. Offers a range of community services including a library, council services, rooms for hire, commercial kitchen, studios, creative resources, programmes, events, work and study areas and a Citizens Advice Bureau.

71 tCO₂e reduced per year (performance against NZGBC original design of building and associated reductions from building tuning).

Asset value:

\$33.1m



Auckland Council Head Office

NABERSNZ rated buildings.

Measure: 22.59 tCO₂e increase.

(Due to the consolidation of corporate properties increasing the occupancy of Auckland Council Head Office).

Asset value:

\$201.0m



Te Kori Scott Point Park

Future green-star rated building.

Asset value:

\$0.84m



Te Hono / Avondale Library

Future green-star rated building.

Asset value:

\$5.0m



Te whakarāpopoto mō ngā rawa me ngā ine matua (e haere tonu ana)

Summary of assets and key measurements (continued)

Te wai toitū me te whakahaere parawai

Sustainable water and wastewater management

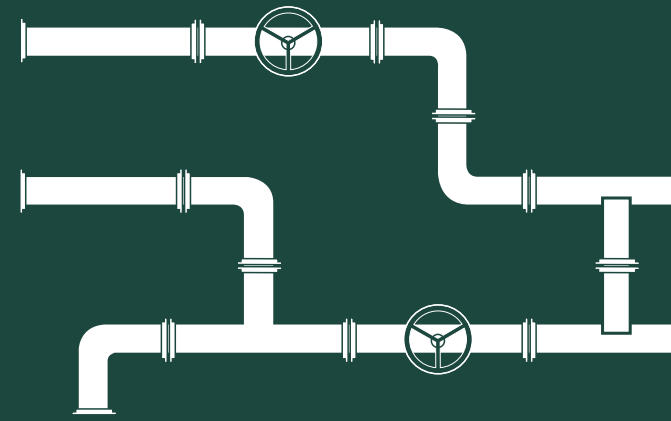
Fred Thomas Drive

Pump station delivering sustainable wastewater management services.

Measure: 3,540,118m³ of water passed.

Asset value:

\$22.2m



Hunua watermain

Water pipeline providing water supply to high growth areas of Auckland.

Benefit: Provides natural disaster resilience.

Asset value:

\$396.9m



Stormwater pipe separation projects

Separation of wastewater and stormwater pipes to reduce the discharge of wastewater into Auckland's harbours.

Benefit: Creating healthier waterways and beach environments.

Asset value:

\$39.7m

Port of Auckland Stormwater Outfall Upgrade Project

The end structure of a stormwater pipe where water leaves the built stormwater system and enters the sea.

Benefit: Reduces the risk of flooding.

Asset value:

\$44.8m

Water quality improvements

Pond and water treatment device upgrades and installation.

Benefit: Water quality treatment devices play a vital role in improving the environmental health of our region by removing suspended solids and other contaminants from rain runoff.

Asset value:

\$76.6m



Te whakarāpopoto mō ngā rawa me ngā ine matua (e haere tonu ana) **Summary of assets and key measurements** (continued)

Te toitū ā-tautaiāo o te whakahaere i ngā rawa o te aotūroa me te whakamahinga whenua **Environmentally sustainable management of living natural resource and land use**

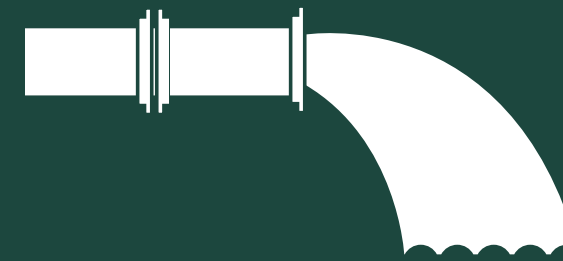
Puketutu Island

Quarry rehabilitation project for wastewater biosolids to avoid landfill.

Measure: 143,339t of waste diverted from landfill.

Asset value:

\$127.1m



Te aukati me te whakahaere parahanga **Pollution prevention and control**

Recycling and food scraps bins

Household recycling and food scrap bins.

Measure: 197,111t of waste diverted from landfill.

Asset value:

\$19.3m



Community recycling centres

Communities that collect unwanted items and materials for reuse and recycling.

Measure: 9,074.91t of waste diverted from landfill.

Asset value:

\$101.3m



Onehunga Material Recovery Facility

Material recovery facility where kerbside recyclables are sorted and then on-sold to end-markets.

Measure: 89,927t of waste diverted from landfill.

Asset value:

\$0m (value to increase at 1 July 2024)



Te whakarāpopoto mō ngā rawa me ngā ine matua (e haere tonu ana)
Summary of assets and key measurements (continued)

Te urutaunga mō te huringa o e āhuarangi
Climate change adaptation

Category 3 buyouts

The purchase of residential properties damaged during extreme weather events that occurred in 2023.

Benefits: Supporting communities to recover from the impacts of extreme weather events in 2023.

Asset value:

\$20.6m



For more information, see **Appendix 1**



Āpitihangā 1 – Te pāpātanga i ā tātou pānga rawa kākāriki

Appendix 1 – Impact of our green bonds



Tūnuku parakore

Clean transportation

Ngā ara pahikara tūmatanui

Public cycleways

Introduction

New cycleways have played a significant role in the growth of bicycle movements and distances travelled by bicycle in recent years (see Figure 1 on page 17). With better network links to public transport hubs, cycling and walking are becoming easier and more accessible choices, enabling Aucklanders to switch their mode of travel from private vehicles to public transport. Auckland Transport (AT) has not only been maintaining and upgrading existing cycleways but also investing in many new projects to support travel by bicycle as a safe mode of transport (see **Auckland Transport's Cycling and Walking Programme**).

Broad benefits

Introducing cycleways has helped Aucklanders safely reach destinations such as work, school, friends, recreation and healthcare. Since 2016, AT has been monitoring cyclist movements across Auckland's cycleways using 26 counters. Those movements increased to 3.8 million in the financial year 2018 but dropped with COVID-19. They have not returned to previous peak levels, as new hybrid work norms have shifted travel patterns. AT recorded 3.4 million cycle movements in the 2024 financial year. However, investments in safe, connected cycle routes such as Quay Street and the Tamaki-Glen Innes shared path, continue to result in growing cycle movements.

The expansion of Auckland's cycleway network delivers the following benefits:

- GHG emission avoidance by substituting all or part of motorised travel with bicycle
- increased accessibility and safety for people on bicycles
- more people are more active, improving well-being
- reduced air and noise pollution when people on bicycles substitute motorised trips
- reduced household cost
- increased space on the road from fewer vehicles, reducing congestion
- greater range of travel options in the city
- improved connections by creating a network of cycleways across the city.



Ngā ara pahikara tūmatanui (e haere tonu ana) Public cycleways (continued)

Reduction of greenhouse gas emissions

Figure 1 shows an estimate of the avoided GHG emissions from cycling in Auckland since 2012. Due to the unavailability of data for all years, we used trend lines to estimate the missing data. From June 2012 to June 2024, the cycling trips in Auckland added up to 923 million kms, avoiding about 28.1 ktCO₂-e (kiloton of Carbon dioxide equivalent) of GHG emissions, had this distance been taken using other transport modes.

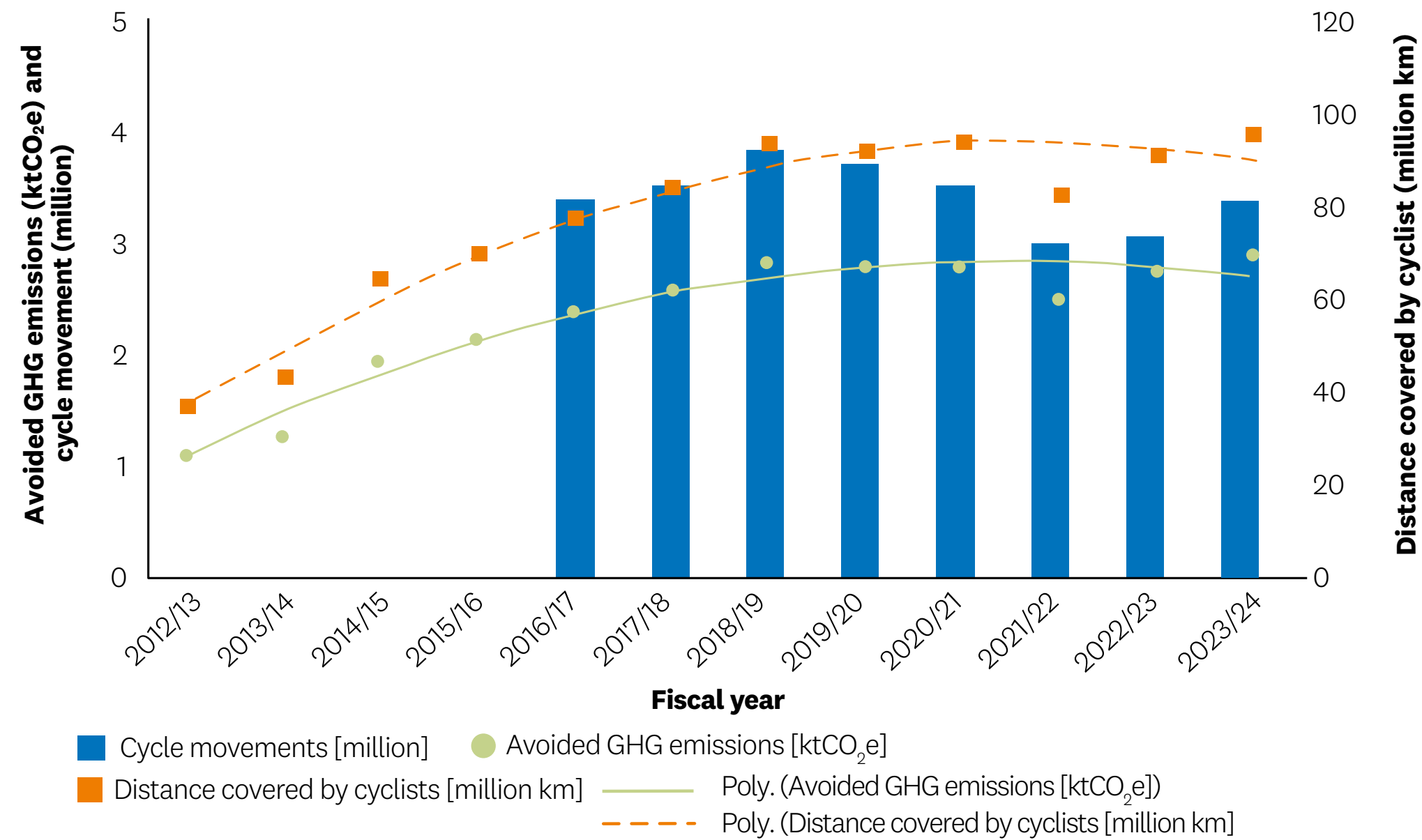


Figure 1. An indicative contribution of avoided GHG emissions due to public cycleways in Auckland.

Methodology

Data for kilometres travelled on Auckland’s cycleways is not available, so the impact on GHG emissions has been estimated for all cycling trips in Auckland. Data from the **Ministry of Transport (MoT) household travel survey** is used as a basis to estimate the kilometres travelled each year, with estimates made for years where data is unavailable. The GHG emissions avoided due to the region’s cycleways have been calculated by assuming bicycles were used instead of light vehicle, public bus, train and walking modes of travel. Diversion factor values from research literature and emissions factors of different modes are used to assess the avoided emissions due to the cycling intervention in the Auckland region. Therefore, if 95.47 million kms were travelled by bicycle in the financial year 2023/2024, the emissions avoided would be 2.9 ktCO₂-e (assuming the alternative is a mix of light vehicle, public bus, train and walking modes). Due to the level of uncertainty, Toitū Envirocare has reviewed our methodology and issued an assurance statement (see **Appendix 4**).



Ngā tereina hiko Electric trains

Introduction

In 2011, AT began a project to switch its train fleet from diesel to electric, as a key element in the region's Integrated Transport Programme to boost capacity and use of the rail network. The project included 57 three-car Electric Multiple Units (EMUs) and electrification of rail lines from Papakura in the south to Swanson in the west. The first EMUs came into passenger service in April 2014 and all 57 by 2015. In 2017, AT bought another 15 EMUs to boost frequency and passenger capacity, and retrofitted the 57 EMUs with a new European Train Control System (ETCS) to overcome obsolescence. These upgrades helped reduce travel time and energy consumption and improve reliability and network capacity. It also led to increased fleet use and speed recovery after incidents. In January 2023, AT ordered a further 23 EMUs, which will bring the EMU fleet size to 95, along with expansion of the Wiri EMU Depot to accommodate the fleet.

Broad benefits

- Since 2013, patronage across Auckland's commuter rail network has increased from 10 million a year to 21.4 million in 2019. COVID-19 and track maintenance works impacted the patronage in financial year 2020, 2021 and 2022, but recovered to 13.9 million in financial year 2024. In financial year 2024, train services accounted for 16 per cent of public transport trips and 2 per cent of public transport related GHG emissions.

The shift of Auckland's commuter rail fleet to mostly electric has delivered significant GHG emission reductions with demonstrable benefits.

- Reduced travel time and increased reliability.
- Reduced energy consumption.

- Increased network capacity without track upgrade.
- Reduced air quality impacts due to the absence of diesel exhaust fumes.
- Reduced noise for passengers, and those living and working near the rail network.
- Faster, more frequent services.
- Improved fleet use and improved recovery after incidents due to integration of driver assistance system.
- Safety improvements, such as cameras enabling the driver to see all of the train, continuous on-board CCTV in all cars, and emergency call points throughout the train allowing passengers to talk directly with the crew in an incident.
- This project has also improved the customer experience.
- Six-car trains instead of three, doubling passenger capacity.
- Improved accessibility such as wider doors, automatic ramps for the mobility impaired and lower floors for pushchairs or people with luggage.
- Sliding plug-type doors, providing weatherproof and soundproof seals.
- Open gangways between cars to allow movement from one end of the train to the other.
- Greater levels of customer comfort, information and safety, with international best-practice passenger information systems that ensure audio and visual information is easy to understand.



Ngā tereina hiko (e haere tonu ana) Electric trains (continued)

Reduction of greenhouse gas emissions

AT assessed the GHG emissions reductions that have resulted from the shift to mostly electric trains. Figure 2 shows the reduction in GHG emissions from the train network since electric trains started operating in 2014. The net reduction of emissions was estimated by comparing a baseline scenario (continued full service by a diesel-only fleet) with actual emissions. The net emissions reduction was estimated to be 22,984 tCO₂-e in financial year 2024.

Methodology

In financial year 2013, AT’s diesel-only fleet consumed an average of 2.96 litres of diesel per kilometre travelled, with each litre of diesel emitting 2.67 kgCO₂-e. Electric trains were introduced to the fleet in 2014, gradually replacing existing diesel trains. To estimate the actual GHG emissions associated with AT’s train fleet, both diesel and electricity based GHG emission factors have been applied, based on the diesel and electricity consumed by respective trains. The GHG emissions saving for each year can be calculated as: GHG emissions saving = baseline GHG emissions (if GHG emissions continued to provide train services) – actual GHG emissions.

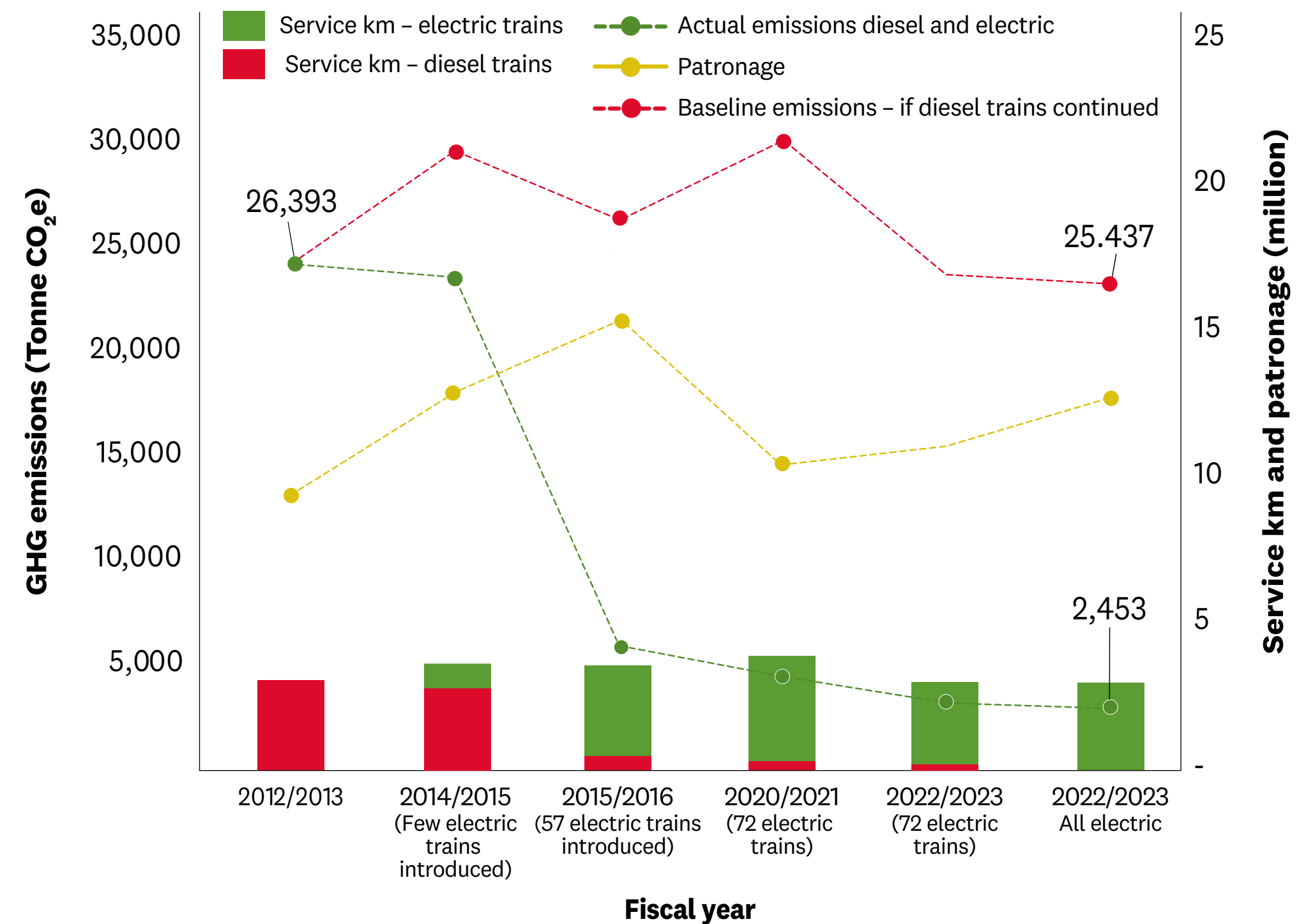


Figure 2. GHG emissions reduction electrification of train fleet.

Te Hongonga Rere Raro Whenua City Rail Link (CRL)

Introduction

The CRL is a 3.45km underground twin-tunnel rail link up to 42m below the Auckland city centre, connecting Waitemata Station (Britomart) to Maungawhau Station to unlock the entire Auckland rail network and double rail capacity. Civil works are now largely complete, and the focus has shifted to architectural finishings, fit-out of the three stations, installation of rail systems, and testing and commissioning. The CRL is on track for practical completion in November 2025, with the operational date to be determined by AT and KiwiRail.

Broad benefits

External sustainability verification

- The project's contract 1, at Waitemata Station, holds a prestigious 'Leading' As-Built Infrastructure Sustainability rating, and contract 2 in lower Albert Street holds an 'Excellent' As-Built Infrastructure Sustainability rating from the **Infrastructure Sustainability Council** (ISC).
- Contract 3 (C3), which makes up 85 per cent of the project, was awarded a 'Leading' Infrastructure Sustainability Design rating in May 2023 by the Infrastructure Sustainability Council, the highest rating possible. An application has been lodged for an ISC As-Built rating, with the project on track for its targeted 'Excellent' rating.

Placemaking

- Maungawhau Station, Karanga-a-Hape Station, Te Waihorotiu Station and Waitemata Station reflect the rich culture and history of their locations. These te reo Māori station names gifted by the City Rail Link Mana Whenua Forum and the striking stations designs by mana whenua artists and designers all acknowledge Auckland's past and its future and the creation story depicting the elements. Reflecting their locations and acknowledging mana whenua cultural traditions and storytelling, they will bring unique architectural and cultural style and vibrancy to Auckland.
- The CRL will be the catalyst for significant development of new commercial properties and thousands of homes to be built around its stations, providing Aucklanders with better access to housing, public transport and employment opportunities.

Social outcomes

- The project is committed to providing supply chain opportunities for small and medium-sized Māori and Pasifika businesses. To date, \$133m worth of contracts ranging from concrete pumping to labour hire and civil construction have been awarded to Māori and Pasifika businesses representing 7 per cent of the total C3 contract spend.



Te Hongonga Rere Raro Whenua (e haere tonu ana) **City Rail Link (CRL)** (continued)

- 43 rangatahi (young people) have graduated from the now completed **CRL Progressive Employment Programme** (PEP). This 16-week-long programme helps Māori, Pasifika and youth transition into rewarding full-time work while recognising them in context of their whānau and communities. Interns receive training, mentoring, pastoral care and exposure to a variety of jobs while being paid, with opportunities for full-time roles after graduation. 16 of the programme graduates have now been in employment for over 12 months.
- Over 400 students have now toured the construction sites as part of the Link Alliance Education Engagement Programme for secondary schools profiling career pathways in the sector.

Future benefits

- CRL will be a game changer for how Aucklanders get around, providing a world class rail network with faster, more frequent, reliable train services, reducing reliance on cars.
- 16 trains per hour through the central city, every four to five minutes at peak.
- Easier connections between more parts of Auckland.
- Adds 50 per cent capacity to the rail network.
- Doubles the number of people within 30 minutes of the city centre.
- At peak times, 24,000 people, over time increasing to 54,000, will come and go from the new CRL stations.

Reduction of GHG emissions

Reducing resource consumption is one of five key focus areas for the CRL. The two most common materials used on the CRL – concrete and steel – contain high levels of embodied carbon. The large volumes of both required to build the CRL also provide the greatest opportunity to reduce the project’s embodied carbon footprint. We are optimising the use of materials and energy from design through to operation. We created an estimate, or base case, for each main construction contract enabling us to track the project’s success. This measures the total amount of energy – materials and water, and the resulting carbon emissions– that would be used to build and operate the CRL if business-as-usual occurred without sustainability interventions. Throughout the project, the team has continued to measure progress to minimise materials, energy usage and the resulting carbon emissions against the original base case calculations. Innovations to reduce materials use and emissions have included measures such as using fly-ash as a less carbon intensive cement replacement in concrete mixes, energy efficient station designs that minimise lighting and ventilation energy use, and reducing and reusing materials and replacing diesel generators with electricity from the grid during construction.



Te Hongonga Rere Raro Whenua (e haere tonu ana) **City Rail Link (CRL)** (continued)

With construction nearly completed, the total reductions in the carbon footprint for C3 are projected to be:

- embodied carbon (as-built whole of life): 27,522 tCO₂e (13 per cent)
- construction energy: 6,968 tCO₂e (22 per cent)
- annual operational energy for the stations, tunnels and streetscape: 296 tCO₂e (22 per cent).

Methodology

GHG emissions savings achieved in comparison to the base case have been based on estimated energy and materials use, in accordance with the requirements of the ISO 14064-1 standard. Where relevant, they are guided by the GHG Protocol Corporate Accounting and Reporting Standard to satisfy the requirements of the Infrastructure Sustainability Council (ISC) credit requirements. The percentage GHG emissions saved is based on the difference between the projected and base case GHG emissions. Whole of life savings indicated have been calculated using an ISC approved backcasting methodology. Toitū Envirocare has reviewed the methodology and energy model used by the Link Alliance.



Te Tauranga Tereina Hiko o Wiri **Wiri Electric Train Depot**

Introduction

Wiri's Electric Train Depot is a maintenance and stabling facility for electric trains. The site is located next to the South-Western Expressway in Wiri and is bordered by Roscommon and Wiri Station Roads.

Its proximity to the Main Trunk Northern Line makes it well suited for access purposes. The purpose-built facility has been developed over 4.4ha and comprises a maintenance building of 7,650sqm, 6km of rail track sidings, seven maintenance berths (some of them are electrified) and stabling for 28 trains. There is also a locally operated points system so that all train movements can be controlled on-site. The depot building comprises three distinct areas:

- the main maintenance hall where trains are serviced
- the ground floor, housing offices for the train supplier
- the first floor, housing the depot control office, the train operator, Transdev, and staff amenities.

The building includes underfloor lifts, overhead gantries and jacking systems to lift the body of the train.

Broad benefits

These include:

- ensuring smooth operation of the electric trains in the network
- providing overhead gantries to lift heavy equipment on and off the trains
- housing permanent train jack systems to lift the body of the train up to remove the bogies (wheel chassis) for maintenance
- wheel lathe and underfloor pits to enable easy access to the electric trains
- automatic train wash and covered platform to facilitate cleaning of the inside of the vehicles.



Te Teihana Pahi o Manukau Manukau Bus Station

Introduction

The Manukau Bus Station is strategically positioned within the Manukau central business district with Manukau Train Station at the west and Manukau Civic Building at the east. The station is part of the Manukau transport interchange and is critical infrastructure in realising the full potential of the upgraded public transport services on the southern network. The station comprises 23 bus bays with future-proofed facilities to enable slot management as service numbers increase, providing flexibility between urban and inter-regional services. The station also includes five retail facilities, a customer service centre, real-time information signage, and an AT HOP ticket vending and reload device.

The station assists in economic development, providing additional capacity for future growth and contributes towards improved service frequency on the public transport (PT) network. It's a crucial hub in the overall southern transport network, serving several key residential, commercial, and industrial catchments. The station has been beneficial to all road users, improving communities' connectivity to business, employment, education, and recreational institutions and facilities via PT.

Both the bus station and Wiri depot contribute towards Auckland's goal of 'a low-carbon, safe transport system that delivers social, economic and health benefits for all' as detailed in

Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan by making travel by PT faster, more frequent and reliable over a wider network.

Broad benefits

These include:

- integrated bus and train operations
- improved passenger transfer between bus-to-bus and bus-to-rail services
- increased comfort and customer experience of PT
- increased patronage through improved frequency, quality and reliability of buses
- enhanced levels of service, security and shelter, particularly early in the morning and late at night
- increased PT mode share options
- reduced congestion in the CBD by relocating inter-regional services to Manukau, providing more space for sustainable transport infrastructure to support urban PT, pedestrians and cyclists in the city centre
- increased spatial coverage of PT, increasing availability of and access to services
- decreased travel time for many bus routes that connect to the Manukau Bus Station.



Te whāmotanga pūngao me ngā whare whāomo

Energy efficiency and green buildings

Te whakapainga ake o ngā rama LED i ngā huarahi

Street lighting LED upgrade

Introduction

Streetlights are an essential piece of city infrastructure and are required for lighting public roads and accessways for traffic and pedestrian safety purposes. Most of the region's streetlights have been changed from golden yellow light to white light. International experience has shown that white light is a factor in crime prevention; it delivers greater comfort and security, and improves visibility and reaction times for drivers and pedestrians, resulting in fewer vehicle crashes and injuries.

The streetlight phase-1 retrofit programme began in May 2015, at this time there were 106,580 lights on the network. These streetlights illuminate both Pedestrian predominant (P-category) and Vehicle predominant (V-category) roads across Auckland. Phase-1 of the retrofit programme converted all 44,000 high-pressure sodium (HPS) lights on the P-category roads to LED over three years.

Phase-2 of the retrofit programme began in financial year 2019 and aimed to replace a further 49,000 HPS on V-category roads. As of July 2024, there are 124,843 lights in the network capable of being LED retrofitted with 98 per cent (122,396) being LED lights.

Broad benefits

These include:

- reduced operating costs from \$10 million in financial year 2015 to \$9 million in financial year 2024 despite the growth and increased electricity tariff
- renewal of an ageing street lighting network
- introduction of LED white lights
- reduced light spill onto neighbouring properties
- reduced maintenance costs
- reduced upward waste light.



Te whakapainga ake o ngā rama LED i ngā huarahi (e haere tonu ana) **Street lighting LED upgrade** (continued)

Reduction of greenhouse gas emissions

Figure 3 shows the reduction in GHG emissions from the streetlight network since the retrofit programme started in financial year 2015. The retrofit programme saw the proportion of LED lights increase from less than 1 per cent in base year 2015 to 98 per cent in 2024. The intervention reduced electricity use to operate streetlight by 45 per cent (55 GWh in 2015 to 24 GWh in 2024). GHG emissions associated with streetlights reduced by 73 per cent (7,024 tCO₂-e in 2015 to 1,884 tCO₂-e in financial year 2024) resulting a net saving of 3,171 tCO₂e in the year 2024 compared to base year 2015 emissions. The reduction in electricity use and a relatively greener electricity grid in 2024 (low electricity emissions factors in 2024), contributed to the emissions saving.

Methodology

GHG emissions saving is calculated by deducting the GHG emissions for the operating streetlight network in the current financial year 2024 from the baseline GHG emissions (base year-2015).

GHG emissions saving = Baseline GHG emissions (Base year) – GHG emissions (Reporting Year).

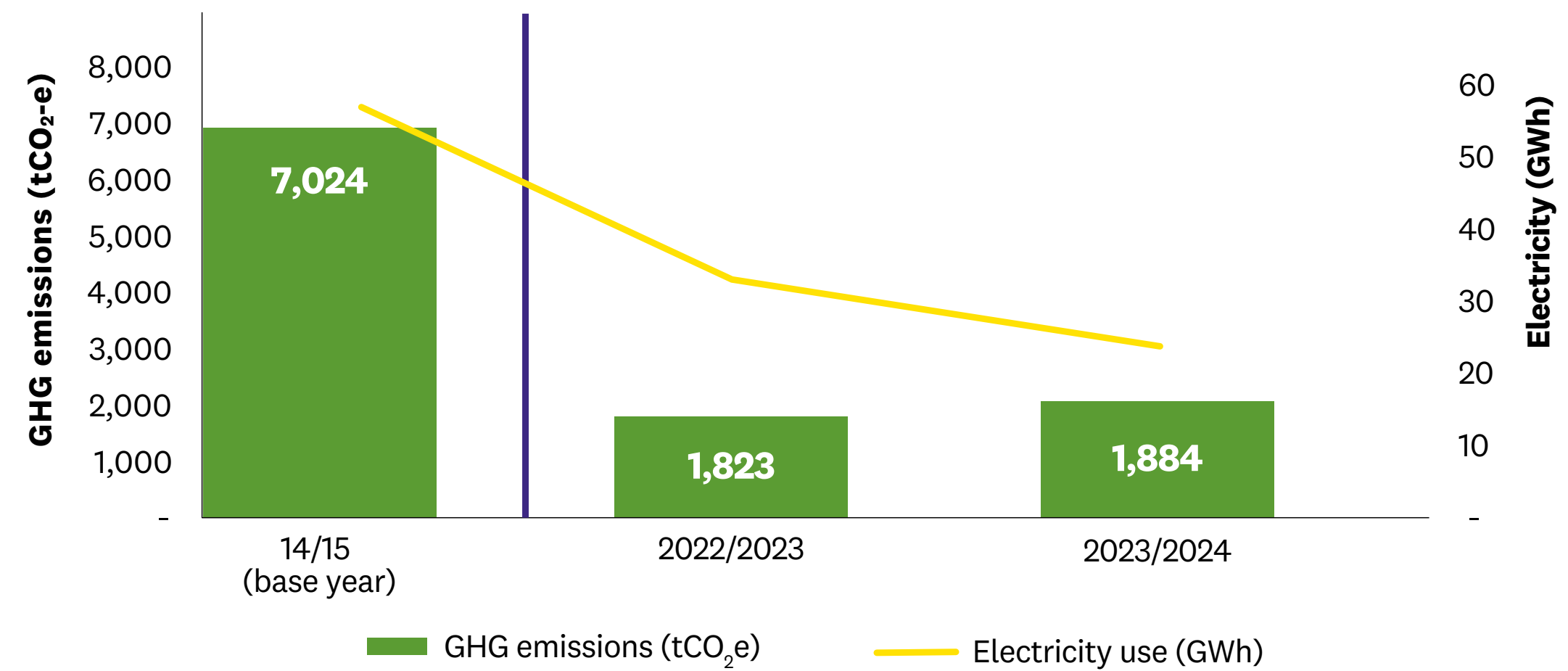


Figure 3. GHG emissions reduction due to LED retrofit.



Te Manawa - Te Whare Hapori o Westgate

Te Manawa – Westgate Community Building

Introduction

Te Manawa – the Westgate Library and Multi-Purpose Facility in the Westgate town centre – stands as a sustainable beacon, prioritising environmental stewardship in its design and operations. This civic building serves as a core community destination while setting a benchmark for sustainability. It offers a library, customer service centre, rooms for hire, commercial kitchen, creative spaces, work and study areas, and a Citizens Advice Bureau along with community-focused programmes and activities. Designed to minimise energy consumption, the building utilises passive strategies such as external shading devices and overhangs, which naturally cool the interior spaces by providing shade. The highly insulated green roof also contributes to stormwater management and biodiversity. A photovoltaic array – a non-mechanical device that converts sunlight directly into electricity – is cleverly integrated as a shaded reading terrace, harnessing renewable solar energy to power the facility. Inside, the building features low-energy displacement ventilation, ensuring optimal air quality while reducing energy demands. Water-efficient fixtures are implemented throughout, promoting responsible water use. The design also emphasises natural light, with the double-height atrium allowing for ample daylight penetration into the public areas, reducing the need for artificial lighting.

In addition to its sustainable features, the building embraces the concept of education through its design. It serves as a platform for showcasing sustainable building techniques, providing visitors with an opportunity to learn and engage with sustainable practices. This aligns with the building’s library function, further reinforcing its role as an educational and community-oriented space.

By incorporating all of the features detailed above, the buildings sustainable design principles have led to the Te Manawa Building achieving a **5 Green Star – Green Star Custom Design Certified Rating**.

Te Manawa serves as an example of how civic buildings can lead the way in sustainability, fostering a greener and more resilient community.

Broad benefits

In addition to reducing overall energy consumption and associated emissions, construction of Te Manawa:

- diverted 83 per cent of construction waste from landfill
- building design is designed to minimise ongoing maintenance throughout the building life cycle
- uses timber sourced from Forest Stewardship Council-certified forests with full chain of custody



Te Manawa - Te Whare Hapori o Westgate (e haere tonu ana) **Te Manawa – Westgate Community Building** (continued)

Broad benefits (continued)

- reduces potable water consumption with water-efficient sanitary fittings and fixtures
- reduces water usage for water-based cooling system
- uses zero potential ozone depleting refrigerants
- is predicted to have significantly lower GHG emissions than a standard building.

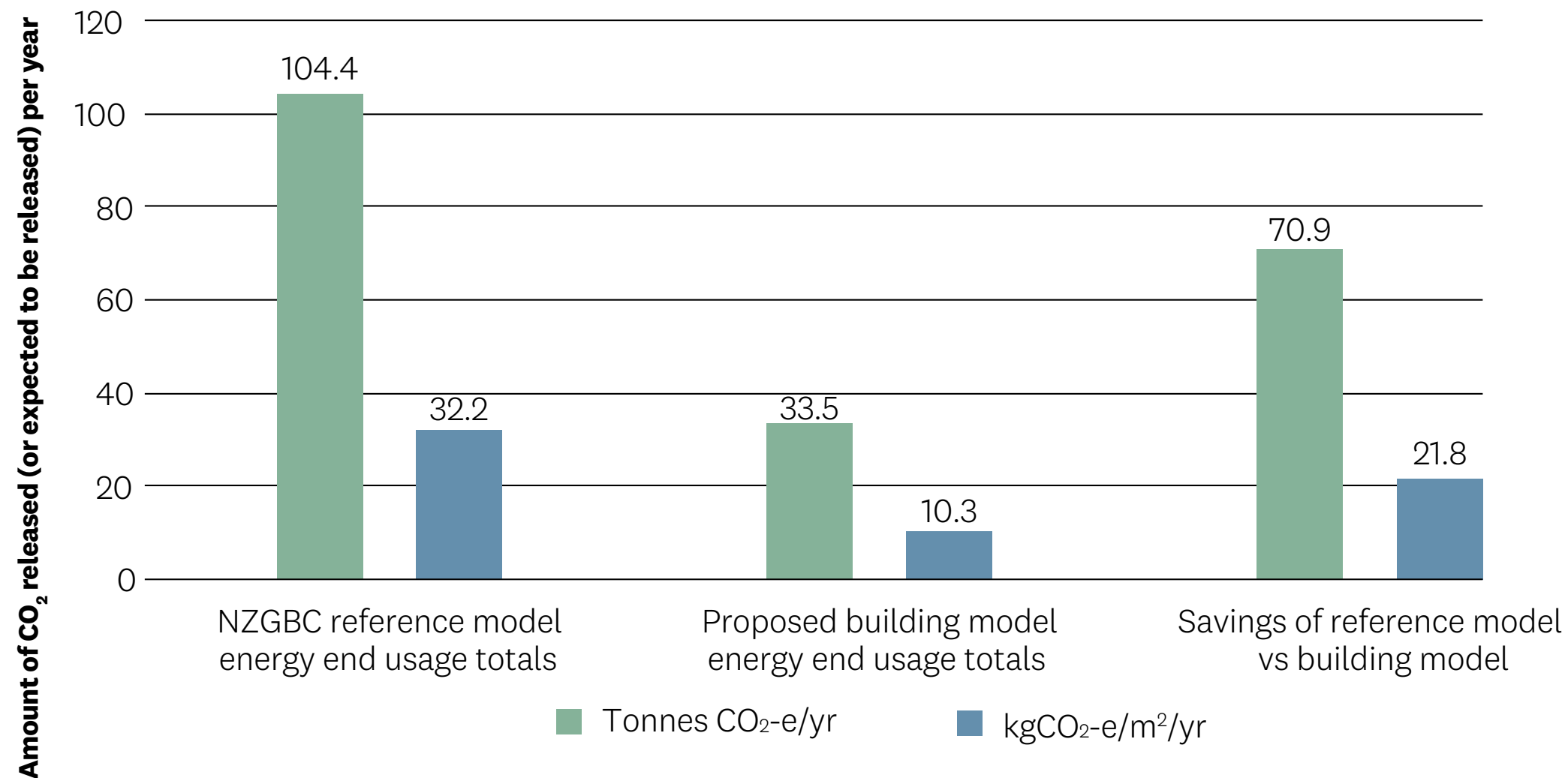


Figure 4. Comparison of annual emissions benchmark between proposed design and NZGBC reference building.

Reduction of greenhouse gas emissions

Figure 4 shows the reduction in GHG emissions. Annual GHG emissions have reduced by 71 tonnes when comparing annual emissions benchmark from Te Manawa outputs, the proposed design and New Zealand Green Building Council (NZGBC) reference building. Once built, the building was ‘tuned’ to ensure optimal performance. This tuning resulted in a further 10 per cent reduction in energy consumption and three tonnes of CO₂ avoided between January 2020 and August 2020. The net reduction of emissions was calculated by the building output calculations and reported in building tuning reports.

Methodology

Each of the models have been simulated for a typical weather year and annual energy use of each end use has been calculated using the design performance parameters as documented in the building design documentation. The annual emissions associated with gas and electricity have been calculated using the reference emission factors used by New Zealand’s Energy Efficiency & Conservation Authority.

- Electricity = 0.1288kgCO₂-e/kWh
- Natural Gas = 0.2168kgCO₂-e/kWh

The subsequent annual reduction in GHG emissions has been benchmarked as 71 tonnes CO₂-e per year (or 21.9 kgCO₂-e/m² per yr).



Whare kāriki

Green buildings

Introduction

For many organisations, their buildings represent a very tangible symbol of their values. Auckland Council is no different. Our green building strategy, particularly for our head office Te Wharau o Tāmaki (Auckland House), is a priority. The council's green building strategy contributes towards the organisational target of reducing GHG emissions by 50 per cent by 2030. Our corporate buildings are currently on track to achieve a 50 per cent reduction well before 2030. The key to ensuring we meet this target is having our buildings **NABERSNZ** rated and, where applicable, green star rated. NABERSNZ ratings are based on the energy performance of a building and is obtained once buildings are occupied and have been operating for a year or more. NABERSNZ ensures buildings are performing at a high standard and provides a benchmark to track progress as energy efficiency measures are implemented.

Broad benefits

Although each building has differing levels of energy efficiency, our corporate buildings are double glazed, have LED lighting, afterhours shut off and building management system (BMS) controls on HVAC. We have also continued to improve our environmental performance with the refurbishment of Auckland House lifts delivering a 50 per cent increase in energy efficiency.

As well as improving energy efficiency, Auckland Council is also looking at how the use of our buildings can be optimised to achieve environmental benefits. Through our corporate property strategy, we're right-sizing our properties to support a more modern, agile and digitally enabled workforce. We are planning through this programme to reduce our corporate property real estate footprint which has also resulted in reductions to our vehicle fleet, corporate office operational costs, and office support services such as online mail and printing.

A reduction in emissions is being driven by less space, active recycling of capital back into held properties to improve performance, and procuring office premises to high green building standards. For our new builds and major refurbishments, we have adopted the NZ Green Building Council Greenstar Standard which reflects and certifies buildings to best practise design for environmental responses and healthy buildings.



Whare kāriki (e haere tonu ana) Green buildings (continued)

Reduction of greenhouse gas emissions

Figure 5 shows a steady decrease in the GHG emissions associated with electricity consumption for Auckland Council Head Office from 2017. From financial year 2017 to financial year 2024, building electricity kWh usage decreased by 57 per cent. GHG emissions increased from financial year 2023 to financial year 2024 by 22.59 tCO₂e due to the consolidation of corporate properties, increasing the occupancy of Auckland Council’s Head Office.

Methodology

Electricity usage is directly recorded on a utility management software called E-Bench. This system has a robust auditing process to ensure data is loaded efficiently and accurately against the correct account. The data, which is provided in kWh, has been converted to tCO₂e using the Ministry for Environment emission factors and reported in Figure 5.

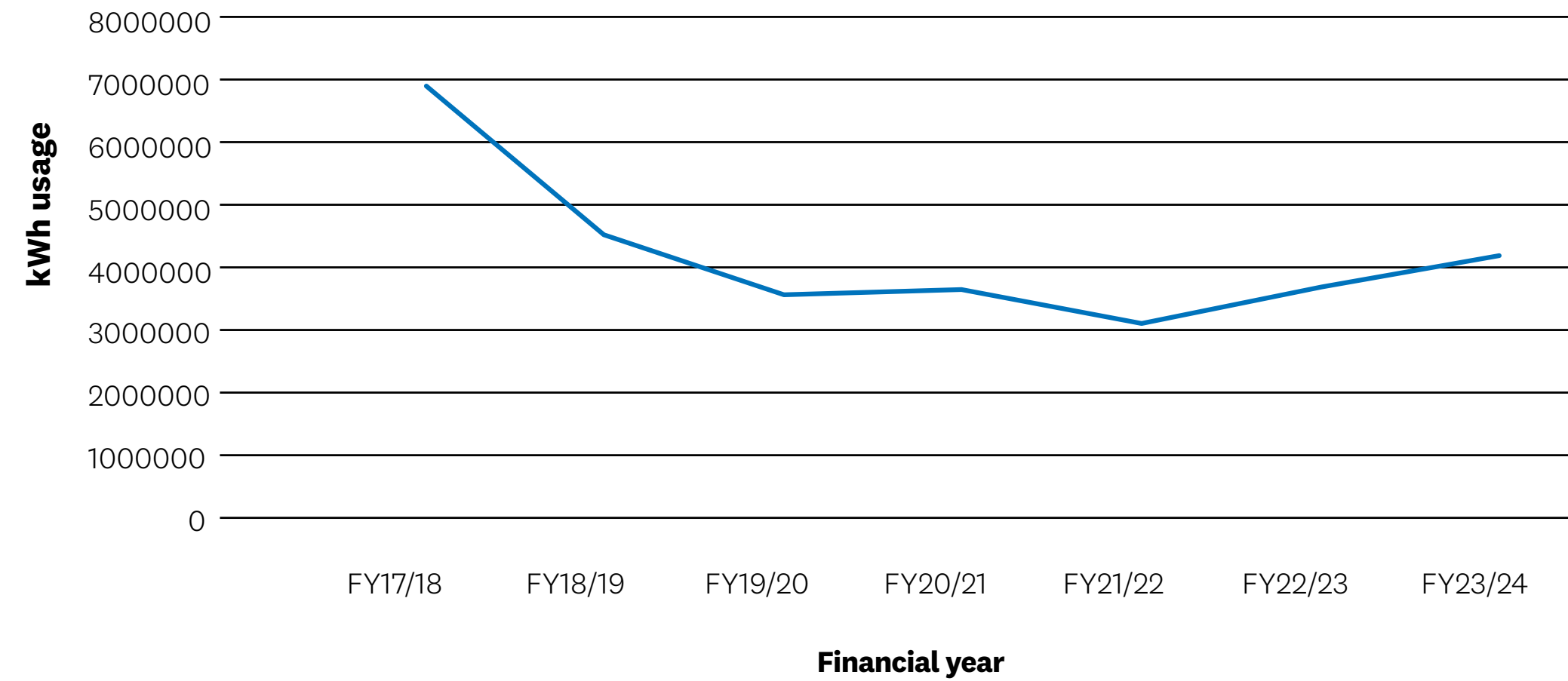


Figure 5. Total annual kWh consumption at Albert House office building.



Te pūngao whakahou **Renewable energy**

Te mūmū ā-papa kōmaru ka mānu **Rosedale floating solar array**

Introduction

The Rosedale floating solar array was the largest in New Zealand when construction finished in 2020.

The one-megawatt array covers 1ha with more than 2,700 solar panels and 4,000 floating pontoons situated at Watercare's Rosedale Wastewater Treatment Plant. It floats on a treated wastewater pond next to Auckland's northern motorway and can generate around 1,400 Megawatt hours per year. The array will generate enough energy to power around a quarter of the sewage treatment plant, saving about \$150,000 a year in electricity costs.

Broad benefits

- Contributes to Watercare's target of 50 per cent reduction in GHG emissions by 2030
- Reducing carbon emissions by 145t each year.
- Generating enough power to run the equivalent of 200 average New Zealand homes for a year.
- Delivers operational cost savings.
- Improves energy self-sufficiency.

Reduction of greenhouse gas emissions

We reduced 98.4 tCO₂e of GHG emissions in financial year 2024.

Energy production this financial year was lower than anticipated due to technical issues arising in some inverters, causing part of the array to be isolated. Further delays were due to the installation company, PowerSmart, having closed business in 2023, leading to delays in sourcing replacement parts.

Methodology

A data export from the solar array management system identifies total energy generation in kWh. This is translated into carbon emission equivalents using Ministry for Environment emission factors to identify the volume of reduced emissions from displacing demand on the electricity grid.



Te wai toitū me te whakahaere parawai

Sustainable water and wastewater management

Te Huarahi o Fred Thomas

Fred Thomas Drive

Introduction

The Fred Thomas Drive pump station upgrade is delivering sustainable wastewater management for the North Shore. The project serves many purposes, with the dual benefit of catering for growth in the region as well as reducing overflows during storm events. The project upgraded the previous Barry's Point Road pump station which was built in the 1960s.

The old pumping station had a pumping capacity of 325 litres per second and wastewater storage of 520,000l. By comparison, the new station has a pumping management capacity of 500 litres per second and a storage capacity of 3.5 million litres. Increased capacity is required to service the changing population in Devonport peninsula and east Takapuna areas where the population is expected to increase from 25,400 in 2015 when the project was initiated, to more than 40,000 by 2050.

Integral to the project is a new storage tank. It has the capacity of 1.5

Olympic swimming pools but will only fill to the brim in storm conditions, which means a reduction in wet-weather overflows during heavy rain into Shoal Bay, Northcote. Infrastructure to reduce overflows is vital to keeping Auckland's beaches clean.

Broad benefits

The project caters for Auckland's growth, replaces ageing infrastructure at the end of its design life, and will help reduce the effect of extreme weather events. It will reduce sewage overflows into the natural environment during extreme weather events, something that was averaging six times a year.



Te Huarahi o Fred Thomas (e haere tonu ana) **Fred Thomas Drive** (continued)

Metrics

The pump station passed 3,540,118 m³ of water in financial year 2024.

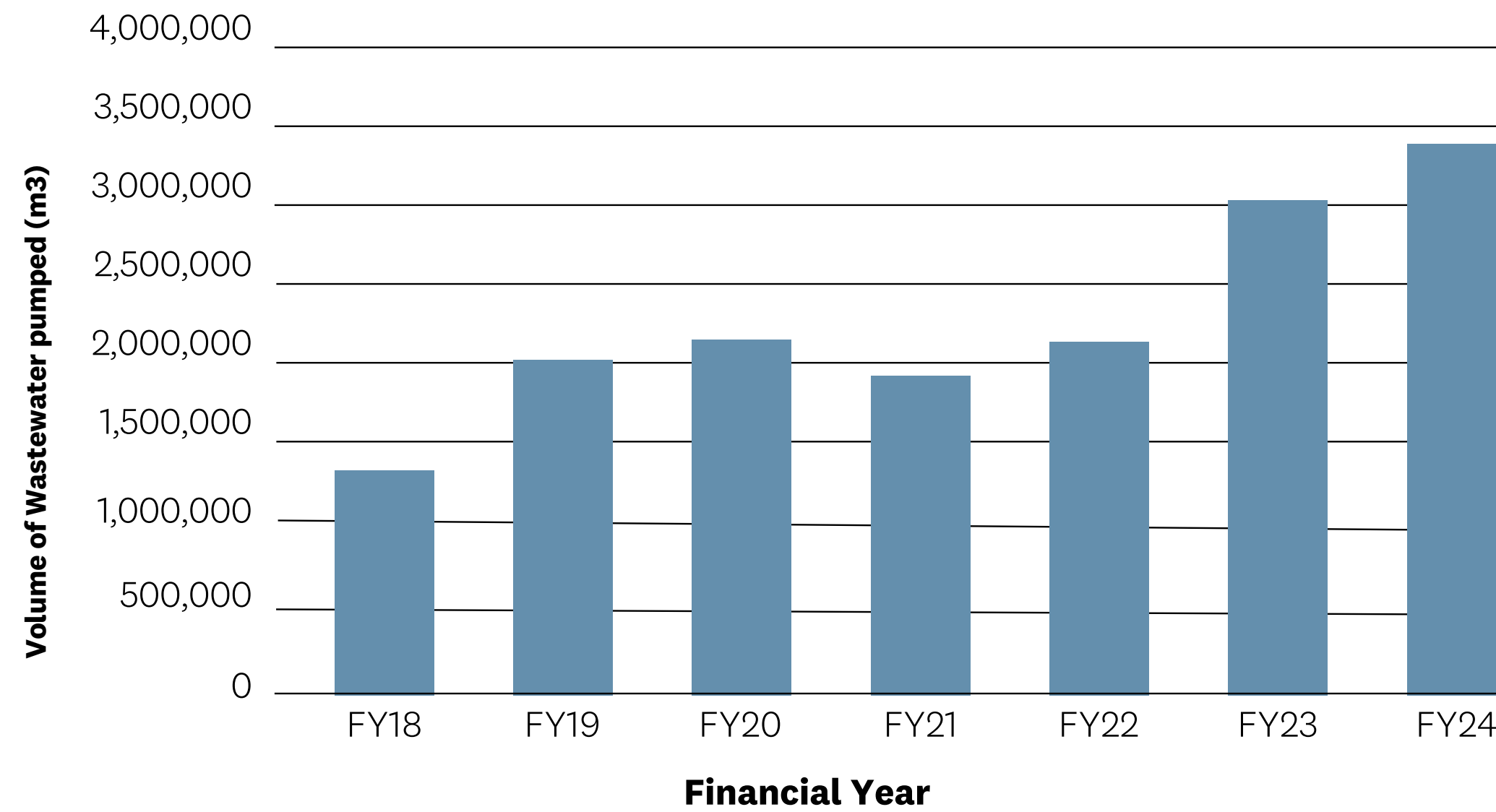


Figure 6. Annual volume of wastewater pumped from Fred Thomas Drive.

Methodology

Wastewater from this site is pumped through a flow meter. Watercare Services Limited's SCADA (supervisory control and data acquisition) software captures and stores this data. The data shared was extracted on 19 July 2024 and exported to a spreadsheet which presents this data.



Te kūtere wai o Hunua **Hunua watermain**

Introduction

Hunua 4 is a 31km waterpipe running from Watercare's reservoirs at Redoubt Road North in Manukau to reservoirs at Khyber Pass Road on the edge of the CBD. This 1.9m x 1.6m pipe will provide water to high growth areas such as Manukau City Centre, Flat Bush/East Tāmaki, and Auckland Airport. It will support growth in all regions of the city over the next 50 years, and provide resilience to the other large transmission mains in the event of outages or natural disaster. It can distribute up to 240 million litres of water per day – almost half the daily demand for Auckland.



Broad benefits

These include:

- uninterrupted, high-quality water supply to meet growing demand
- providing resilience in the event of a natural disaster
- allowing Watercare to maintain the assets without major disruption to the water supply.

Construction also delivered benefits.

- The final section of the pipeline, from Epsom to Khyber Pass, follows arterial routes. The design team reviewed their standard approach and used tunnels instead of trenches to reduce disruption for road users and businesses.
- We sourced a large percentage of materials from around the region, including local aggregate, and the steel pipe was made in the suburb of Onehunga with steel from New Zealand Steel at Glenbrook south-west of Auckland.



Te toitū ā-tautaiāo o te whakahaere i ngā rawa o te ao tūroa me to whakamahinga whenua

Environmentally sustainable management of living natural resources and land use

Te Motu o Puketutu Puketutu Island

Introduction

Puketutu Island – known as Te Motu a Hiaroa to Mana Whenua – is sacred to the people of Te Kawerau ā Maki, Te Waiohūa and Waikato-Tainui in Tāmaki Makaurau. It was the first permanent home of the crew of the Tainui waka in Aotearoa. The site has immense cultural, spiritual, historical and ancestral significance to the people of Te Kawerau ā Maki, Te Waiohūa and Tainui, who are recognised as the kaitiaki (guardians) of the island. In the 1950s, the island was quarried for projects including the expansion of the nearby Auckland Airport. Thousands of tonnes of scoria and basalt rock were removed, and the island’s volcanic cones disappeared. Many years ago, Watercare bought a long-term lease on the island and then transferred its ownership to a trust with 12 iwi trustees.

We are now rehabilitating the island by filling the former quarry with biosolids from the Mangere Wastewater Treatment Plant. At the end of the project in 2049, the natural landscape will be restored and the area will become a recreational reserve for Aucklanders. Four hills will replicate the scoria cones quarried in the 1950s. The contours of the hills are based on photos from the early 1900s and the community’s recollections of the island. The shape of these hills went through 52 iterations with the community and iwi to ensure they accurately reflect their previous glory.

Broad benefits

- The project will significantly reduce waste to landfill. Over the lifetime of the project approximately 4.4 million tonnes of biosolids will have been used to restore the quarry, rather than go to landfill.
- The long-term goal is for the island to serve as a recreational reserve for everyone in Auckland to enjoy.
- It will restore a culturally significant site.

Metrics

In financial year 2024, we diverted 143,339t of waste from landfill to restore the quarry.



Te Motu o Puketutu **Puketutu Island** (continued)

Methodology

Weighbridge data for the site is collected daily. This data includes a lime additive. To calculate the volume diverted from landfill, the volume of lime additive is deducted from the total volume calculation.

New water legislation and removal of assets

The Local Government (Water Services Preliminary Arrangements) Act 2024 was introduced in September 2024. It enables Auckland Council to implement a new model for water service delivery where we retain 100 per cent ownership of Watercare and shifts the legislative obligation to provide water supply and wastewater service from the council to Watercare. It also prohibits the council from providing financial support to Watercare.

Our eligible asset schedule includes four assets owned by Watercare to the value of \$548m. This legislation reduces the pool of eligible assets available to the council to raise green bonds but gives rise to a new opportunity for Watercare to raise debt in a sustainable format. Watercare-owned assets will be removed from our eligible asset schedule from 1 July 2025.



Te aukati me te whakahaere parahanga

Pollution prevention and control

Te hangarua ā-whareoho me ngā ipu rukenga kai

Household recycling and food scrap bins

Household recycling and foods scrap bins are a fundamental component of our waste management and sustainability initiatives. Household recycling bins are designed to collect and segregate recyclable materials such as paper, cardboard, plastics, metals, and glass from general waste. By providing easily accessible and clearly labelled recycling bins to households, we aim to reduce the volume of waste sent to landfills, promote resource conservation, and minimise environmental impact.

Household food scrap bins collect organic waste such as fruit and vegetable peels, coffee grounds, eggshells, and other compostable materials. Food scrap bins support our efforts to divert organic waste from landfills where it would otherwise contribute to GHG emissions, and instead, transform it into valuable compost.

Broad benefits

- Environmental protection: Reduces pollution and conserves natural resources by recycling materials instead of extracting new raw materials.
- Waste reduction: Decreases the amount of waste sent to landfills, extending their lifespan and reducing methane emissions.

- Energy savings: Recycling typically requires less energy compared to producing new products from raw materials, thus conserving energy and reducing carbon footprints.
- Soil enrichment: The collected food scraps are processed into compost, which enhances soil health and fertility, promoting sustainable agriculture.
- Community engagement: Encourages environmentally responsible behaviour among residents, fostering a culture of sustainability within communities.
- Waste diversion: Reduces the amount of organic waste sent to landfills, thereby decreasing methane emissions and mitigating climate change.
- Resource conservation: Composting food scraps recycles nutrients back into the ecosystem, reducing the need for chemical fertilisers.

In 2024, the council's household recycling service diverted 174,107t of waste from landfill. The introduction of food scrap bins diverted a further 23,004t of waste from landfill.



Te aukati me te whakahaere parahanga

Pollution prevention and control (continued)

Ngā pokapū hangarua ā-hapori

Community recycling centres

Community recycling centres play a crucial role in our sustainability and waste management initiatives. These centres provide a centralised location where residents can drop off a wide range of recyclable materials, including items that are not typically collected through curbside recycling programmes, such as whiteware, furniture, lawnmowers, bicycles, books, timber, household bric-a-brac, building materials, metals.

Broad benefits

- **Comprehensive recycling:** Enables the collection and recycling of a broader range of materials, reducing waste sent to landfills and promoting resource conservation.
- **Convenient access:** Offers residents a convenient and accessible way to dispose of recyclable materials responsibly, encouraging higher participation rates.
- **Environmental protection:** Helps prevent hazardous materials, such as batteries and electronics, from polluting the environment by ensuring they are properly recycled.



- **Economic benefits:** Supports local recycling industries and creates green jobs, contributing to the local economy.
- **Education and outreach:** Implementing programs to educate the community about the benefits of recycling and the types of materials accepted at the centres.
- **Centre accessibility:** Ensuring centres are conveniently located and equipped with user-friendly facilities to encourage greater usage.
- **Partnerships and collaboration:** Working with local governments, businesses, and non-profit organisations to enhance recycling infrastructure and services.

In 2024, our community recycling service diverted 9,074.9t of waste from landfill.






Āpitihianga 2 – Te uaratanga o ngā rawa māraurau

Appendix 2 – Value of eligible assets at 30 June 2024

No.	Eligible asset	Eligible asset details	Eligible sector (see <u>Auckland Council's Sustainable Finance Framework</u>)	Climate Bond standard (CBS) criteria/ GBP alignment	UN SDG alignment	Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan alignment	Asset value (book value) NZ\$m	Asset value (project cost) NZ\$m	Future spend (project cost) NZ\$m	CBI certified asset	Added under the eligibility criteria as of 30 September 2024
1	Electric multiple units	Original rolling stock of electric trains (commenced operations in 2014)	Clean transportation	GBP: Clean transportation CBI: Transport, public passenger transport, trains – rolling stock and vehicles for electrified public transport, such as electrified rail, trams, trolleybuses and cable cars	11 SUSTAINABLE CITIES AND COMMUNITIES 	<u>Ikiiki, Transport</u>	\$404.2	N/A	None	Yes	No
2	Electric multiple units	Second lot of 15 rolling stock of electric trains (commenced in 2017)	Clean transportation	GBP: Clean transportation CBI: Transport, public passenger transport, trains – rolling stock and vehicles for electrified public transport, such as electrified rail, trams, trolleybuses and cable cars	11 SUSTAINABLE CITIES AND COMMUNITIES 	<u>Ikiiki, Transport</u>	\$65.7	N/A	None	Yes	No








Appendix 2: Value of eligible assets at 30 June 2024 (continued)

No.	Eligible asset	Eligible asset details	Eligible sector (see <u>Auckland Council's Sustainable Finance Framework</u>)	Climate Bond standard (CBS) criteria/ GBP alignment	UN SDG alignment	Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan alignment	Asset value (book value) NZ\$m	Asset value (project cost) NZ\$m	Future spend (project cost) NZ\$m	CBI certified asset	Added under the eligibility criteria as of 30 September 2024
3	Electric multiple units	New lot of 23 rolling stock of electric trains (commenced in 2022)	Clean transportation	GBP: Clean transportation CBI: Transport, public passenger transport, trains – rolling stock and vehicles for electrified public transport, such as electrified rail, trams, trolleybuses and cable cars	 11 SUSTAINABLE CITIES AND COMMUNITIES	<u>Ikiiki, Transport</u>	\$60.8	N/A	\$221.4 (unaudited)	Yes	No
4	Public cycleway assets	Public cycle and walking infrastructure (commenced construction in 2012)	Clean transportation	GBP: Clean transportation CBI: Transport, public passenger transport, infrastructure – public walking and cycling infrastructure and cycling schemes	 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	<u>Ikiiki, Transport</u>	N/A	\$188.1	None	Yes	No
5	City Rail Link	New rail tunnel and station to enhance network and enable higher electric train use (commenced construction in 2016)	Clean transportation	GBP: Clean transportation CBI: Transport, public passenger transport, infrastructure – dedicated infrastructure for electrified public transport	 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	<u>Ikiiki, Transport</u>	N/A	\$2,237.1	\$584.9 (unaudited)	Yes	No






Appendix 2: Value of eligible assets at 30 June 2024 (continued)






No.	Eligible asset	Eligible asset details	Eligible sector (see <u>Auckland Council's Sustainable Finance Framework</u>)	Climate Bond standard (CBS) criteria/ GBP alignment	UN SDG alignment	Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan alignment	Asset value (book value) NZ\$m	Asset value (project cost) NZ\$m	Future spend (project cost) NZ\$m	CBI certified asset	Added under the eligibility criteria as of 30 September 2024
6	Wiri Electric Train Depot	Maintenance depot for electric trains to improve reliability of network and enable higher electric train use (commenced construction in 2012)	Clean transportation	GBP: Clean transportation CBI: Transport, public passenger transport, infrastructure – dedicated infrastructure for electrified public transport		Ikiiki, Transport	\$68.5	N/A	None	Yes	No
7	Manukau Bus Station	Transfer station connecting bus users to the rail network and other buses (commenced construction in 2016)	Clean transportation	GBP: Clean transportation	 	Ikiiki, Transport	\$11.4	N/A	None	No	No
8	Street lighting LED upgrade	LED upgrade to reduce energy consumption (stage 1 completed 2018, stage 2 delivery began in 2019)	Energy efficiency	GBP: Energy efficiency	 	Ikiiki, Transport	\$81.8	N/A	\$30.8 (unaudited)	No	No



Appendix 2: Value of eligible assets at 30 June 2024 (continued)





No.	Eligible asset	Eligible asset details	Eligible sector (see <u>Auckland Council's Sustainable Finance Framework</u>)	Climate Bond standard (CBS) criteria/ GBP alignment	UN SDG alignment	Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan alignment	Asset value (book value) NZ\$m	Asset value (project cost) NZ\$m	Future spend (project cost) NZ\$m	CBI certified asset	Added under the eligibility criteria as of 30 September 2024
9	Auckland Council Head Office	135 Albert Street, Auckland (4-star NABERSNZ rated upgrade completed in 2015)	Green buildings	GBP: Green buildings		Taiao hanga, Built environment	\$201.0	N/Z	None	No	No
10	Fred Thomas Drive	Wastewater storage and pumping station (commenced construction in 2016)	Sustainable water and wastewater management	GBP: Sustainable water and wastewater management		Taiao hanga, Built environment	\$22.2	N/A	None	No	No
11	Hunua watermain pipeline	New watermain infrastructure providing uninterrupted, high-quality water supply to the growing Auckland region (commenced construction in 2012)	Sustainable water and wastewater management	GBP: Sustainable water and wastewater management		Taiao hanga, Built environment	\$396.9	N/A	None	No	No

Appendix 2: Value of eligible assets at 30 June 2024 (continued)

No.	Eligible asset	Eligible asset details	Eligible sector (see <u>Auckland Council's Sustainable Finance Framework</u>)	Climate Bond standard (CBS) criteria/ GBP alignment	UN SDG alignment	Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan alignment	Asset value (book value) NZ\$m	Asset value (project cost) NZ\$m	Future spend (project cost) NZ\$m	CBI certified asset	Added under the eligibility criteria as of 30 September 2024
12	Rehabilitation of Puketutu Island	Rehabilitation of Puketutu Island using treated biosolids from Mangere wastewater treatment plant (commenced in 2013)	Environmentally sustainable management of living natural resource and land use	GBP: Environmentally sustainable management of living natural resources and land use	  	Taiao māori, Natural environment	\$127.1	N/A	None	No	No
13	Rosedale floating solar array	2,700 solar panels floating on the Rosedale Wastewater Treatment Plan in Albany, generating a quarter of the energy needed by the plant (operating from 2020)	Renewable energy	GBP: Renewable energy		Te ngao me te ahumahi, Energy and industry	\$2.1	N/A	None	No	No
14	Te Manawa (Westgate Multi-purpose Facility)	5 green-star rated building, (opened in 2019)	Green buildings	GBP: Green buildings		Taiao hanga, Built environment	\$33.1	N/A	None	No	No






Appendix 2: Value of eligible assets at 30 June 2024 (continued)

No.	Eligible asset	Eligible asset details	Eligible sector (see <u>Auckland Council's Sustainable Finance Framework</u>)	Climate Bond standard (CBS) criteria/ GBP alignment	UN SDG alignment	Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan alignment	Asset value (book value) NZ\$m	Asset value (project cost) NZ\$m	Future spend (project cost) NZ\$m	CBI certified asset	Added under the eligibility criteria as of 30 September 2024
15	Community recycling centres	11 Community Recycling Centres (council owned, community operated).	Pollution prevention and control	GBP: Pollution prevention and control	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 	Ōhanga, Economy	\$101.3	N/A	None	No	No
16	General recycling and food scrap bins	General recycling, and food scrap bins	Pollution prevention and control	GBP: Pollution prevention and control	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 	Ōhanga, Economy	\$19.3	N/A	None	No	No
17	Te Kori Scott Point Park	Future green-star rated building	Green buildings	GBP: Green buildings	11 SUSTAINABLE CITIES AND COMMUNITIES 	Taiao hanga, Built environment	\$0.84	N/A	\$36.0 (unaudited)	No	Yes
18	Te Hono-Avondale Library	Future green-star rated building	Green buildings	GBP: Green buildings	11 SUSTAINABLE CITIES AND COMMUNITIES 	Taiao hanga, Built environment	\$5.0	N/A	\$37.4 (unaudited)	No	Yes






Appendix 2: Value of eligible assets at 30 June 2024 (continued)

No.	Eligible asset	Eligible asset details	Eligible sector (see <u>Auckland Council's Sustainable Finance Framework</u>)	Climate Bond standard (CBS) criteria/ GBP alignment	UN SDG alignment	Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan alignment	Asset value (book value) NZ\$m	Asset value (project cost) NZ\$m	Future spend (project cost) NZ\$m	CBI certified asset	Added under the eligibility criteria as of 30 September 2024
19	Port of Auckland Stormwater Outfall Upgrade Project	The end structure of a stormwater pipe where water leaves the built stormwater system and enters the sea	Sustainable water and wastewater management	GBP: Sustainable water and wastewater management		Taiao hanga, Built environment	N/A	\$44.8	\$5.2 (unaudited)	No	Yes
20	Water quality improvement	Pond and water treatment device upgrades and installation	Sustainable water and wastewater management	GBP: Sustainable water and wastewater management		Taiao hanga, Built environment	N/A	\$76.6	\$141.2 (unaudited)	No	Yes
21	Stormwater pipe separation projects	Separation of wastewater and stormwater pipes to reduce the discharge of wastewater into Auckland's harbours	Sustainable water and wastewater management	GBP: Sustainable water and wastewater management		Taiao hanga, Built environment	N/A	\$39.7	\$88.6 (unaudited)	No	Yes



Appendix 2: Value of eligible assets at 30 June 2024 (end)

No.	Eligible asset	Eligible asset details	Eligible sector (see <u>Auckland Council's Sustainable Finance Framework</u>)	Climate Bond standard (CBS) criteria/ GBP alignment	UN SDG alignment	Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan alignment	Asset value (book value) NZ\$m	Asset value (project cost) NZ\$m	Future spend (project cost) NZ\$m	CBI certified asset	Added under the eligibility criteria as of 30 September 2024
22	Onehunga Material Recovery Facility	Material recovery facility where kerbside recyclables are sorted and then on-sold to end-markets	Pollution prevention and control	GBP: Pollution prevention and control		<u>Ōhanga, Economy</u>	N/A	\$0	\$118.6 (unaudited)	No	Yes
23	Category 3 buyouts	The purchase of residential properties damaged during extreme weather events that occurred in Auckland in 2023	Climate change adaptation	GBP: Climate change adaptation	 	<u>Ngā hapori me te tahatai, Communities and coast</u>	N/A	\$20.6	\$553.0 (unaudited)	No	Yes
Total CBI certified eligible green bond assets							\$599.2	\$2,425.3	\$806.4 (unaudited)		
Total non-CBI certified eligible green bond assets							\$1,002.1	\$181.9	\$1,010.8 (unaudited)		
Total current green bond eligible assets							\$ 4,208.5				
Future planned eligible green asset spend (project cost)									\$1,817.2		

Notes:

GBP - Green Bond Principles

UN SDG - United Nations Sustainable Development Goals

1. Asset values are shown net of third party (eg. Waka Kotahi) funding received.

2. Future spend values have not been audited.

3. The impact of assets added at 30 June 2024 will be reported in the 2024/2025 financial year Green Bond Annual Report.



ĀpitiHanga 3 – Sustainalytics Annual Review

Appendix 3 – Sustainalytics Annual Review

Auckland Council



Type of Engagement: Annual Review

Date: 09 September 2024

Engagement Team:

Akshay Chandrapure, akshay.chandrapure@morningstar.com

Nachiket Goli, nachiket.goli@morningstar.com

Introduction

Auckland Council (the “Council”) issued nine green bonds¹ (collectively referred as the “Green Bonds”) and raised a total of NZD 3,693.52 million since July 2019, to finance projects that are intended to deliver positive environmental outcomes. In 2024, the Council engaged Sustainalytics to review the projects financed with proceeds from the Green Bonds (the “Nominated Expenditures”) and provide an assessment as to whether they meet the use of proceeds criteria and whether the Council complied with the reporting commitments outlined in the 2019 Auckland Council Green Bond Framework which was subsequently updated in September 2020, September 2021, September 2022 and September 2023 (collectively referred to as the “Frameworks”).² Sustainalytics has not provided a Second-Party Opinion on the Frameworks.

Evaluation Criteria

Sustainalytics evaluated the Nominated Expenditures and the Council's reporting based on whether they:

1. Meet the use of proceeds and eligibility criteria defined in the Frameworks; and
2. Reported on at least one key performance indicator (KPI) for each use of proceeds category defined in the Frameworks.

Table 1: Use of Proceeds Categories, Eligibility Criteria and Associated KPIs as per the Frameworks³

Use of Proceeds Category	Eligibility Criteria	Key Performance Indicators
Clean Transportation	Low carbon transport assets, systems, and infrastructure (including retrofits) such as tramways, electric trains, metro, public walking and cycling infrastructure, cycling schemes, electric and hydrogen vehicles and associated infrastructure, information and communications technologies that improve asset utilization of low carbon transport. For bus, bus rapid transport, commuter rail and hybrid cars, a greenhouse gas emissions threshold of 50 gCO ₂ per passenger per km will apply.	Qualitative and, where feasible, quantitative performance measures as part of reporting on the impact of the eligible assets

¹ Since July 2019, Auckland Council has issued nine Green Bonds: i) in July 2019, a NZD 150 million bond under the 2019 Green Bond Framework; ii) in September 2020, a NZD 500 million bond under the 2020 Sustainable Finance Framework; iii) in October and November 2021, bonds of NZD 300 million and NZD 807.78 million respectively, under the 2021 Sustainable Finance Framework; iv) in October 2022, two bonds of NZD 178.76 million each, under the 2022 Sustainable Finance Framework; v) in September 2023, November 2023, and March 2024, bonds of NZD 300 million, NZD 215.32 million, and NZD 1,062.90 million, respectively, under the 2023 Sustainable Finance Framework.

² Auckland Council, “Sustainable Finance Framework”, (2023), at: <https://www.aucklandcouncil.govt.nz/about-auckland-council/investor-centre/information-for-investors/more%20information/sustainable-finance-framework.pdf>. Sustainalytics notes that the Frameworks prior to the 2023 Sustainable Finance Framework are not publicly available.

³ The eligibility criteria for the Use of Proceeds have been consolidated and aligned with the Frameworks for 2019-2023.



Appendix 3: Sustainalytics Annual Review (continued)

Annual Review
Auckland Council

Use of Proceeds Category	Eligibility Criteria	Key Performance Indicators
Sustainable Water and Wastewater Management	Both engineered and nature-based water and wastewater management including collection, storage, treatment, distribution and re-cycling infrastructure and technologies as well as water management systems to buffer against floods or drought.	
Green Buildings	Construction of low carbon and efficient buildings that have or will receive a minimum 5-Green Star rating or have an equivalent third-party certification (e.g. NABERSNZ), specifically for new asset developments and major renovations on assets over \$10 million. Existing buildings that have a minimum 5-Green Star rating or equivalent third-party certification (e.g. NABERSNZ). Renovations of current buildings to minimum 4-Green Star rating or equivalent third-party certification (e.g. NABERSNZ). For precincts, the rate able Net Lettable Area (NLA) meets these same recognized standards for at least 90% of the total NLA.	
Environmentally sustainable management of living natural resources and land use	Environmentally sustainable management of living natural resources and land use (including environmentally sustainable animal husbandry; climate smart farm inputs such as biological crop protection or drip-irrigation; environmentally sustainable forestry, including afforestation or reforestation, and preservation, rehabilitation, or restoration of natural landscapes).	
Energy Efficiency	Business, assets, or projects that develop processes and products/technology that reduce energy consumption of the underlying asset and achieve a minimum 30% reduction in greenhouse gas emissions, for example technologies in new and refurbished buildings, energy storage, district heating, smart grids, appliances, and products.	
Renewable Energy	Generation of energy from renewable sources such as wind, solar, geothermal, hydropower (provided environmental and social impact assessments are undertaken and no significant controversies are identified) and bioenergy with lifecycle emissions of less than 100g CO ₂ e/kWh, declining to 0g CO ₂ e/kWh by 2050 and only second-generation biofuels are used. Technology/componentry manufacturing that contributes to renewable energy generation that meets the above criteria (e.g. wind turbines and solar panels).	
Pollution Prevention and Control	Facilities that contribute to reduction of air emissions, greenhouse gas control and soil remediation. Waste management projects, technologies, assets and supporting infrastructure that promote or enable waste prevention, minimization, collection, recycling (including presorting), composting, or processing/capture of GHG emissions. This includes assets used for preparation and storage of materials for recycling or re-use.	
Climate Change Adaptation	Climate change resilience and adaptation interventions that may include projects costs to mitigate flooding, or costs associated with the buyout of properties/assets impacted by severe weather events as a result of climate change (providing that repurposing of the land does not result in any adverse impacts and is in alignment with the TMSG considerations detailed in section 4.2). Infrastructure and technologies that increase resilience to and protect against the impacts of climate change including natural ecosystem preservation	

Issuer's Responsibility

The Council is responsible for providing accurate information and documentation relating to the details of the projects, including descriptions, amounts allocated and impact.



Appendix 3: Sustainalytics Annual Review (continued)

Annual Review
Auckland Council

Independence and Quality Control

Sustainalytics, a leading provider of ESG research and ratings, conducted the verification of the use of proceeds from the Green Bonds. The work undertaken as part of this engagement included collection of documentation from the Council and review of said documentation to assess conformance with the Frameworks.

Sustainalytics relied on the information and the facts presented by the Council. Sustainalytics is not responsible nor shall it be held liable for any inaccuracies in the opinions, findings or conclusions herein due to incorrect or incomplete data provided by the Council.

Sustainalytics made all efforts to ensure the highest quality and rigor during its assessment process and enlisted its Sustainability Bonds Review Committee to provide oversight of the review.

Conclusion

Based on the limited assurance procedures conducted,⁴ nothing has come to Sustainalytics' attention that causes us to believe that, in all material respects, the Nominated Expenditures do not conform with the use of proceeds criteria and reporting commitments in the Frameworks. The Council has disclosed to Sustainalytics that the proceeds from the Green Bonds were fully allocated as of 30 June 2024.

Detailed Findings

Table 2: Detailed Findings

Framework Requirements	Procedure Performed	Factual Findings	Error or Exceptions Identified
Use of Proceeds Criteria	Verification of projects to determine alignment with the use of proceeds criteria outlined in the Framework.	The Nominated Expenditures comply with the use of proceeds criteria.	None
Reporting Criteria	Verification of projects or assets to determine if impact was reported in line with the KPIs outlined in the Framework.	The Council reported on at least one KPI per use of proceeds category.	None

⁴ Sustainalytics' limited assurance process includes reviewing documentation relating to details of projects, as provided by the issuing entity, which is responsible for providing accurate information. These may include descriptions of projects, estimated and realized costs, and reported impact. Sustainalytics has not conducted on-site visits to projects.



Appendix 3: Sustainability Annual Review (continued)

Annual Review
Auckland Council

Appendices

Appendix 1: Allocation to Eligible Assets

Table 3: Allocation of proceeds from the Green Bonds

Use of Proceeds Category	Project Description	Amount Allocated (NZD million)	Total Amount Allocated (NZD million)
Clean Transportation	Public cycleway network: Increasing accessibility and safety for people on bicycles.	188.15	3,035.92
	Electric trains: Switching train fleet from diesel to electric.	530.70	
	Wiri electric train depot: Maintenance and stabling facility for electric trains.	68.50	
	City Rail Link (CRL): Underground rail link enabling rail network to double in capacity.	2,237.14	
	Manukau Bus Station: Major public transport exchange.	11.43	
Sustainable Water and Wastewater Management	Fred Thomas Drive: Pump station delivering sustainable wastewater management services.	22.18	580.26
	Hunua Watermain: Waterpipe providing water supply to high growth areas.	396.87	
	Port of Auckland Stormwater Outfall Upgrade Project: The end structure of a stormwater pipe where water leaves the built stormwater system and enters the sea.	44.84	
	Water Quality Improvements: Pond and water treatment device upgrades and instillation.	76.66	
	Stormwater Pipe Separation Projects: Separation of wastewater and stormwater pipes to reduce the discharge of wastewater into Auckland's harbours.	39.71	
Green Buildings	Te Manawa – Westgate Community Building	33.08	239.96
	Auckland Council Head Office	201.00	



Appendix 3: Sustainalytics Annual Review (continued)

Annual Review
Auckland Council

	Te Kori Scott Point Park	0.84	
	Te Hono- Avondale Library	5.04	
Energy Efficiency	LED streetlights: Reducing energy consumption and providing safer environments.	81.83	81.83
Environmentally sustainable management of living natural resources and land use	Puketutu Island: Quarry rehabilitation project for wastewater biosolids to avoid landfill	127.16	127.16
Renewable Energy	Rosedale floating solar array: Floating solar panels, generating clean energy.	2.07	2.07
Pollution Prevention and Control	Recycling and food scrap bins	19.29	120.63
	Community Recycling Centers: Communities that collect unwanted items and materials for reuse and recycling.	101.34	
Climate Change Adaptation	The purchase of residential properties damaged during extreme weather events that occurred in 2023.	20.66	20.66
Total Amount Raised (NZD million)		3,693.52	
Total Amount Allocated (NZD million)		4,208.50	
Unallocated Amount (NZD million)		0	



Appendix 3: Sustainalytics Annual Review (continued)

Annual Review
Auckland Council

Appendix 2: Impact from the Eligible Assets

Table 4: Reported Impact from the Green Bonds

Use of Proceeds Category	Project Description	Reported Impact
Clean Transportation	Public cycleway network: Increasing accessibility and safety for people on bicycles.	Estimated 2.9 ktCO ₂ e emissions avoided in FY 2024
	Electric trains: Switching train fleet from diesel to electric.	22,984 tCO ₂ e emissions avoided in FY 2024
	Wiri electric train depot: Maintenance and stabling facility for electric trains.	Ensures smooth operation of the electric trains in the network.
	City Rail Link (CRL): Underground rail link enabling rail network to double in capacity.	Projected carbon reductions: <ul style="list-style-type: none"> i. Embodied carbon (as-built whole of life): 27,522 tCO₂e (13%) ii. Construction energy: 6,968 tCO₂e (22%) iii. Annual operational energy for the stations, tunnels and streetscape: 296 tCO₂e (22%)
	Manukau Bus Station: Major public transport exchange.	Increased public transport patronage by improving frequency, quality and reliability of buses.
Sustainable Water and Wastewater Management	Fred Thomas Drive: Pump station delivering sustainable wastewater management services.	3,540,118 m ³ of water passed in FY 2024.
	Hunua Watermain: Waterpipe providing water supply to high growth areas.	Provides natural disaster resilience
	Port of Auckland Stormwater Outfall Upgrade Project: The end structure of a stormwater pipe where water leaves the built stormwater system and enters the sea.	Reduces the risk of flooding
	Water Quality Improvements: Pond and water treatment device upgrades and instillation.	Water quality treatment devices play a vital role in improving the environmental health of the region by removing suspended solids and other contaminants from rain runoff
	Stormwater Pipe Separation Projects:	Creating healthier waterways and beach environments



Appendix 3: Sustainalytics Annual Review (continued)

Annual Review
Auckland Council

	Separation of wastewater and stormwater pipes to reduce the discharge of wastewater into Auckland's harbours.	
Green Buildings	Te Manawa – Westgate Community Building	71 tCO ₂ e reduced per year
	Auckland Council Head Office	NABERSNZ Certified
	Te Kori Scott Point Park	Future Green-star rated building
	Te Hono- Avondale Library	Future Green-star rated building
Energy Efficiency	LED streetlights: Reducing energy consumption and providing safer environments.	3,171 tCO ₂ e emissions avoided in FY2024
Environmentally sustainable management of living natural resources and land use	Puketutu Island: Quarry rehabilitation project for wastewater biosolids to avoid landfill	143,339 tonnes of waste diverted from landfill in FY 2024.
Renewable Energy	Rosedale floating solar array: Floating solar panels, generating clean energy.	98.4 tCO ₂ e emissions avoided in FY 2024.
Pollution Prevention and Control	Recycling and food scraps bins	197,111 tonnes of waste diverted from landfill in FY 2024.
	Community Recycling Centers: Communities that collect unwanted items and materials for reuse and recycling.	9,074.91 tonnes of waste diverted from landfill in FY 2024.
Climate Change Adaptation	The purchase of residential properties damaged during extreme weather events that occurred in 2023.	Supporting communities to recover from the impacts of extreme weather events



Appendix 3: Sustainalytics Annual Review (continued)

Annual Review
Auckland Council

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Appendix 3: Sustainalytics Annual Review (end)

Annual Review
Auckland Council

About Morningstar Sustainalytics

Morningstar Sustainalytics is a leading ESG research, ratings and data firm that supports investors around the world with the development and implementation of responsible investment strategies. For more than 30 years, the firm has been at the forefront of developing high-quality, innovative solutions to meet the evolving needs of global investors. Today, Sustainalytics works with hundreds of the world's leading asset managers and pension funds, which incorporate ESG and corporate governance information and assessments into their investment processes. Sustainalytics also works with hundreds of companies and their financial intermediaries to help them consider sustainability in policies, practices and capital projects. For more information, visit www.sustainalytics.com.



ĀpitiHanga 4 – Toitū Envirocare - Te Arotake i te Pāpātanga

Appendix 4 – Toitū Envirocare – Review of Impact



REVIEW OF IMPACT ASSESSMENT EMISSIONS

For organisation:

AUCKLAND COUNCIL

Date: 12th September 2024

Auckland Council has drafted content within an Impact Assessment section of their Green Bond Annual Report FY2024, which provides details on the contribution that selected asset developments contribute towards a reduction or avoidance in greenhouse gas emissions.

Toitū Envirocare reviewed* the relevant sections of the report for accuracy of data transfer from the calculation files, and for credibility of the claims. The review checked the work flow and workbook designs, with a focus on the following components: Claim Language, Activity data, Assumptions, Formula calculations, Emissions factors.

Results of the review were articulated back to Auckland council in the form of a short review report, and which concludes the calculations are robust enough for the scope and intent of the measurements performed.

Toitū considers the methodology appropriate and the workings sufficient for the purpose of the impact communications being made.

Assets reviewed included: Electric trains, Public Cycleway Assets, Street Lighting LED Upgrade, Energy use at Albert House, Watercare floating solar array

*File version: 25-PRO-0084_Green_Bond_Annual_Report_2024_accessible_v3 HM v5.pdf

Disclaimer: the service provided was a review and limited to the files and procedures listed and outlined above. This document should not be considered as a verification assurance statement and no assurance was provided as part of this review.

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