

03 March 2022

Dear [REDACTED]

Re: OIA request – Public Sector Carbon Neutrality Accountability project

Thank you for your Official Information Act request received 4 February 2022, seeking information from Waitematā District Health Board about our carbon neutral plans.

Before responding to your specific questions, it may be useful to provide some context about our services.

Waitematā is the largest and one of the most rapidly growing DHBs in the country, serving a population of around 650,000 across the North Shore, Waitakere and Rodney areas. We are the largest employer in the district, employing around 8,600 people across more than 80 locations.

In addition to providing care to our own resident population, we are the Northern Region provider of forensic mental health services and child rehabilitation services, plus the metro Auckland provider of child community dental services and community alcohol and drug services.

In response to your request, we are able to provide the following information:

1. Do you have a carbon neutral plan by 2025 and, if so, what is the official wording of it?

Waitematā DHB is committed to progressing initiatives to increase energy efficiency and reduce carbon emissions associated with its operations by 2025 through our Carbon Reduction Plan - see **Attachment 1**.

The plan is reviewed annually through Toitu 'carbonreduce' certification. Our work on carbon neutrality is in progress, based on modelling available through the Carbon Neutral Government Programme.

2. Do you have a carbon neutral team or committee? If so, how many are in this team, and are they trained/experts?

Yes. Waitematā DHB has a commitment to sustainability through its Sustainability policy. Carbon reduction is a work stream governed by a sustainability steering group. The sustainability team comprises four staff, including an existing sustainability advisor role which we are currently recruiting to.

3. How much carbon do you emit/how are your carbon emissions measured?

Waitematā DHB emissions are measured annually through the Toitu 'carbonreduce' programme and detailed in our 2020 – 2021 Emission Inventory Report (EIR) – Attachment 2. The EIR gives an overview of the top 10 emission sources, measured as CO₂-equivalent (CO₂-e).

Our total CO₂-e emissions for 2020 – 2021, totalled 13,674.79 tonnes.

4. If coal is still in use at your facilities, when do you plan to phase it out?

Coal is not used as an energy source at Waitematā DHB.

5. Have you transitioned to electric vehicles (EVs) and or/hybrids? Have you begun to downsize your fleet size?

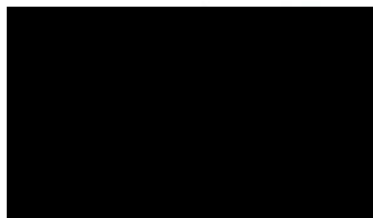
The transition process is underway with the introduction of an additional 62 EVs to the Waitematā DHB fleet in 2022. The fleet of around 480 vehicles is constantly reviewed by our fleet manager and operational services for reduction opportunities. The fleet is unlikely to materially reduce in overall size in the next 12 months. However, the proportion of conventional vehicles powered solely by an internal combustion engine (ICE vehicles) will likely reduce. Fleet vehicles are essential to the delivery health services across our district of North Shore, Rodney and Waitakere, particularly in community and rural settings.

I trust that this information is helpful.

Waitematā DHB supports the open disclosure of information to assist community understanding of how we are delivering publicly funded healthcare. This includes the proactive publication of anonymised Official Information Act responses on our website from 10 working days after they have been released.

If you consider there are good reasons why this response should not be made publicly available, we will be happy to consider your views.

Yours sincerely



**Facilities Services Director
Waitematā DHB**



EMISSIONS MANAGEMENT AND REDUCTION PLAN

Toitū carbonreduce and Toitū carbonzero programme



Waitemata District Health Board

Person responsible: Emma Coote, Principal Advisor Sustainability

Prepared by: Emma Coote, Principal Advisor Sustainability

Dated: 09 October 2021

For the period: 01 July 2020 to 30 June 2021

Base year: 01 July 2016 to 30 June 2017

Verification status: <Toitū Envirocare certification team to complete>

Approved for release by:

A handwritten signature in black ink, consisting of several loops and a final flourish.

Signature required (electronic or actual) – Ensure that this document is signed by a top manager (with authority to provide top management commitment) before submission for verification.

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INTRODUCTION

This report is the annual greenhouse gas (GHG) Emissions Management and Reduction Plan prepared for Waitemata District Health Board and forms the manage step part of the organisation's application for Programme certification.¹²

RATIONALE

Health services have several broad areas of interest in climate change. The first is the direct and indirect impact of climate change on health. This is well described in the IPCC 5th assessment Working Group 2 report (Chapter 11), including health impacts of heat waves, floods, droughts, vector-borne diseases, food-borne disease, air quality, water quality, food supply and security, and ecological changes, and impacts on physical and mental health, and nutrition. Health equity and ethical issues are also of considerable importance. Climate change threatens to slow, halt or even reverse the health gains that society and health care systems have made over the last century (WHO and Healthcare Without Harm 2009).

There are also potential co-benefits for health from a low emission society and economy including improved air quality, social well-being, physical health and obesity reduction (New Zealand Productivity Commission's low-emissions economy issues paper prepared by the Auckland Regional Public Health Service (ARPHS) and endorsed by the Chief Executives of the Auckland, Waitemata, Counties Manukau, and Northland District Health Boards (DHBs).)

The Healthcare sector is also a significant contributor of greenhouse gas emissions through its consumption of fossil fuels, energy, medicines and production of waste. The Climate Change Response (Zero Carbon) Act 2019 established a national goal to be net zero carbon by 2050. The Carbon Neutral Government Programme (CNPG) announced in December 2020 has subsequently introduced a target for public sector organisations to become carbon neutral by 2025. The following plan has been developed in order to meet the requirements of the CNPG and progress the organisation towards the 2025 goal.

The Waitemata DHB Sustainability Vision is to create a DHB modelling health for all life, creating positive value for people and planet.

The Sustainability Policy is based around two key principles. In all activities Waitemata DHB will seek to;

- (1) Maximise efficiency - Reducing waste through efficient purchasing and processes including wasted resources (materials, energy, water), time and money.
- (2) Minimise harm - Minimising harm to people, the community and the environment.

Waitemata DHB identifies five key interconnected target areas for Sustainability. These target areas are chosen based on their potential financial, efficiency, social and environmental impacts.

Waitemata DHB's key sustainability target areas are:

- Sustainable Procurement
- Energy, Carbon and Transport
- Waste Management
- Water Management

¹Throughout this document 'emissions' means 'GHG emissions'.

²Programme means the Toitū carbonreduce and Toitū carbonzero certification programme.

-Designing the Built Environment.

Improvements in each of these areas can have a significant impact on our greenhouse gas emissions. The following EMRP provides a progress report on established carbon reduction targets and sets focus areas for FY21/22 based on the final greenhouse gas inventory for FY20/19.

TOP MANAGEMENT COMMITMENT

Waitematā DHB's Senior Management Team approved the Sustainability Action Plan to pursue Toitū CarbonReduce certification (with appropriate budget). Previous commitments are demonstrated via the Sustainability Policy, the inclusion of carbon management in the monthly Audit and Finance report and leadership on sustainability issues such as procurement.

In January 2021 the Waitemata Sustainability Steering Group was convened made up of Executive Leadership Team (ELT) and Senior manager representatives. The purpose of the group is to assist the integration of sustainable thinking into Waitematā DHB organisational processes through leadership on the Sustainability Policy and Management System. The aim of this group is to help define how a sustainable DHB looks and functions and to support the evolution of Waitematā DHB from an organisation with a sustainability policy to a sustainable organisation. The members of the group will bring their expertise, knowledge and networks to steer the development of sustainability within the organisation.

PERSON RESPONSIBLE

The Principal Advisor Sustainability is responsible for driving the organization's sustainability strategy and all work programs that underpin it. This includes overseeing the data collection, interrogation and reporting for Waitemata DHBs greenhouse gas inventory and the subsequent development of this carbon reduction plan.

The workstreams developed to achieve our carbon goals are collaborations between relevant departments and individuals at the DHB with guidance provided by the sustainability team.

AWARENESS RAISING AND TRAINING

Sustainability initiatives, changes and achievements are communicated via a number of platforms including the Staff Newsletter, 6-weekly Audit and Finance committee reports, sustainability webpage, sustainability champion updates and on-the-ground presentations as required or requested. Training is provided to select groups on specific sustainability focus areas such as waste minimization and energy efficiency.

SIGNIFICANT EMISSIONS SOURCES

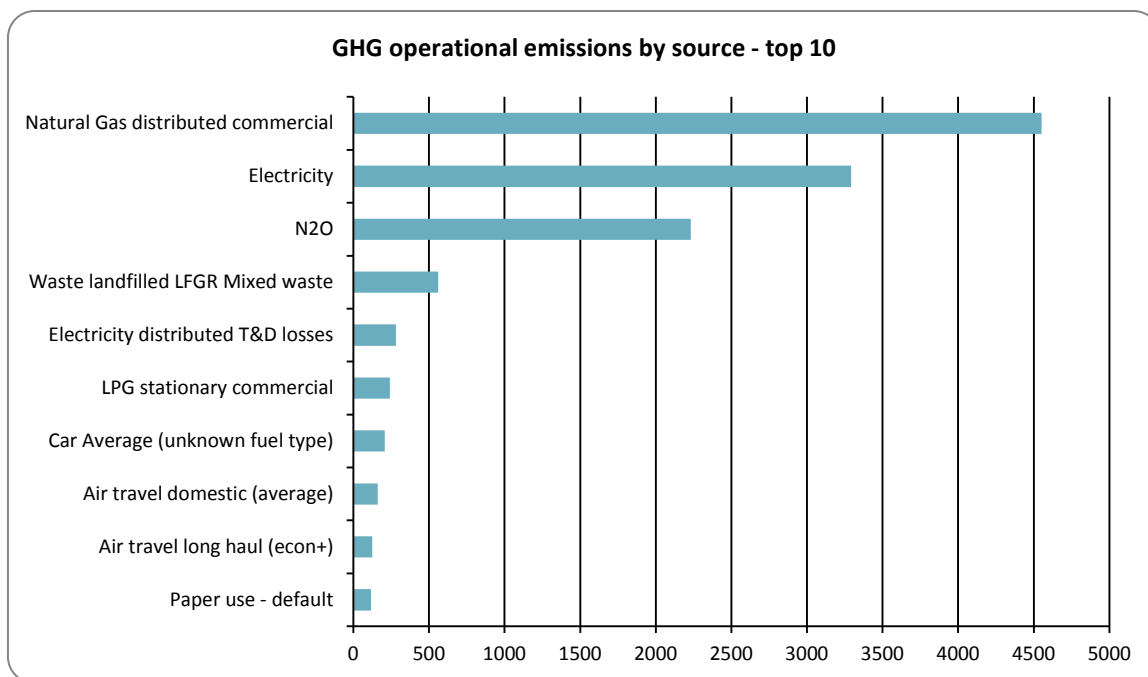


Figure 1: GHG emissions by source.

The EMRP addresses the top emissions sources (refer to emissions source diagram in EIR), and which the organisation has direct control. These are in line with other Auckland-region DHB's, including:

ENERGY (electricity, gas, diesel) and WATER

TRAVEL (shuttle, fleet, air travel, taxi)

MEDICAL GASES (NO₂, CO₂, desflurane, sevoflurane)

WASTE (general, medical)

PAPER

REFRIGERANTS

The DHB has committed to improvements in energy efficiency through its collaboration agreement with EECA. Work streams have also been developed to address emissions from fleet, travel, waste, medical gas, and consumables. Data quality overall is sound.

TARGETS FOR EMISSIONS REDUCTION

The organisation is committed to managing and reducing its emissions in accordance with the Programme requirements. Table 1 provides details of the emission reduction targets to be implemented. These are 'SMART' targets (specific, measurable, achievable, realistic, and time-constrained).

Waitemata DHB has established targets across Scope 1, 2 and 3 sources. Originally established in 2019 with a 5 year outlook, the targets have been reviewed in line with the requirements of the CNPG and informed by the recent findings of our Energy Transition Accelerator (ETA) programme.

The earliest target end date was June 2021 for a 10% reduction in gas and electricity. All other targets end in 2024. Table 1. below includes a column showing progress against target. The figure provided is the difference between the target and the emissions from FY20/21 either negative (less than target) or positive (greater than target).

It is intended to undertake a full review of all targets prior to the FY21/22 reporting year end and adopt guidance provided in the CNPG. This enables WDHB to further develop understanding of the processes, drivers and projects required to ensure that targets are consistent with recognized scientific criteria and a 1.5 degree limit on warming.

Table 1: Emission reduction targets

| Emissions reduction initiative | Target | Baseline (tCO ₂ e) | 2020/21 (New Baseline Year) | Target (tCO ₂ e) | Progress against target | Target date | Metrics/ KPI | Responsibility | Rationale |
|---|--------|-------------------------------|-----------------------------|-----------------------------|-------------------------|-------------|-----------------------------------|------------------------|---|
| Scope 1, Scope 2 and Scope 3 emissions to be achieved within 5 years from the Base Year | 5% | 12,966.91 | 12,552.00 | 12,318.56 | 233.44 | 30/06/2024 | Absolute total tCO ₂ e | Sustainability Manager | Achievable through the application of the reduction projects discussed further below. |
| Emissions specific 'subtargets': | | | | | | | | | |
| Waitemata District Health Board>Air travel domestic (average) | 5% | 248.15 | 161.42 | 235.74 | -74.32 | 30/06/2024 | personal kilometres | Finance | Remote learning and attendance can replace travel. |
| Waitemata District Health Board>Air travel long haul (business) | 5% | 989.25 | 22.69 | 939.79 | -917.10 | 30/06/2024 | personal kilometres | Finance | Remote learning and attendance can replace travel. |
| Waitemata District Health Board>Air travel long haul (econ) | 5% | 204.63 | 18.90 | 194.40 | -175.50 | 30/06/2024 | personal kilometres | Finance | Remote learning and attendance can replace travel. |
| Waitemata District Health Board>Air travel long haul (econ+) | 5% | 56.28 | 124.83 | 53.46 | 71.37 | 30/06/2024 | personal kilometres | Finance | Remote learning and attendance can replace travel. |
| Waitemata District Health Board>Air travel short haul (econ) | 5% | 213.59 | 9.03 | 202.91 | -193.88 | 30/06/2024 | personal kilometres | Finance | Remote learning and attendance can replace travel. |
| Waitemata District Health Board>Air travel short haul b/f class | 5% | 63.82 | 0.00 | 60.63 | -60.63 | 30/06/2024 | personal kilometres | Finance | Remote learning and attendance can replace travel. |

| Emissions reduction initiative | Target | Baseline (tCO ₂ e) | 2020/21 (New Baseline Year) | Target (tCO ₂ e) | Progress against target | Target date | Metrics/ KPI | Responsibility | Rationale |
|---|--------|-------------------------------|-----------------------------|-----------------------------|-------------------------|-------------|--------------|-------------------------------|---|
| Waitemata District Health Board>CO ₂ | 5% | 3.10 | 5.06 | 2.95 | 2.11 | 30/06/2024 | Patients | Clinical Director Anaesthesia | CO ₂ losses can be avoided. |
| Waitemata District Health Board>Desflurane | 10% | 690.88 | 82.07 | 621.79 | -539.72 | 30/06/2024 | Patients | Clinical Director Anaesthesia | Alternative to desflurane exists |
| Waitemata District Health Board>Sevoflurane | 10% | 29.12 | 29.00 | 26.21 | 2.79 | 30/06/2024 | Patients | Clinical Director Anaesthesia | Alternative to sevoflurane exists |
| Waitemata District Health Board>Isoflurane | | | 0.00 | | 0.00 | 1/07/2024 | Patients | Clinical Director Anaesthesia | An alternative to other Anaesthesia |
| Waitemata District Health Board>Diesel | 1% | 88.58 | 79.71 | 87.69 | -7.98 | 30/06/2024 | Litres | Fleet Manager | Averaged against total fleet (~2k litres of fuel reduction according to 2015-16, ~3 vehicles) |
| Waitemata District Health Board>HCFC-22 (R-22, Genetron 22 or Freon 22) | 0% | 5.43 | 0.45 | 5.43 | -4.98 | 30/06/2024 | Floor space | Facilities Manager | Target met and exceeded. No HCFC-22 used. |
| Waitemata District Health Board>HFC-134a | 0% | 45.05 | 4.29 | 45.05 | -40.76 | 30/06/2024 | Floor space | Facilities Manager | Use will vary each year based on maintenance requirements. |
| Waitemata District Health Board>N ₂ O | 0% | 1,198.85 | 2,230.44 | 1,198.85 | 1,031.59 | 30/06/2024 | Patients | Head of Division Midwifery | Nitrous oxide may be managed with tighter controls to reduce usage |
| Waitemata District Health Board>Petrol | 1% | 691.28 | 29.81 | 684.37 | -654.56 | 30/06/2024 | Litres | Fleet Manager | Averaged against total fleet |
| Waitemata District Health Board>Petrol premium | 0% | 9.68 | 27.18 | 9.68 | 17.51 | 30/06/2024 | Litres | Fleet Manager | Averaged against total fleet |
| Waitemata District Health | 0% | 93.14 | 67.41 | 93.14 | -25.73 | 30/06/2024 | kg | Facilities | Use will vary each year based on |

| Emissions reduction initiative | Target | Baseline (tCO ₂ e) | 2020/21 (New Baseline Year) | Target (tCO ₂ e) | Progress against target | Target date | Metrics/ KPI | Responsibility | Rationale |
|--|--------|-------------------------------|-----------------------------|-----------------------------|-------------------------|-------------|--------------|------------------------|---|
| Board>R-407C | | | | | | | | Manager | maintenance requirements. |
| Waitemata District Health Board>R-410A | 0% | 42.39 | 53.23 | 42.39 | 10.84 | 30/06/2024 | kg | Facilities Manager | Use will vary each year based on maintenance requirements. |
| Waitemata District Health Board/Northshore Hospital>Electricity | 10% | 2,412.40 | 1,853.34 | 2,171.16 | -317.82 | 30/06/2021 | kWh | Facilities Manager | Utilities monitoring system, LED upgrades, Computer sleep, continuous commissioning |
| Waitemata District Health Board/Northshore Hospital>Natural Gas distributed commercial | 10% | 3,215.99 | 3,278.80 | 2,894.39 | 384.41 | 30/06/2021 | kWh | Facilities Manager | Alternative hot water and steam generation can be adopted |
| Waitemata District Health Board/Northshore Hospital>Paper use office virgin fibre | 0% | 20.96 | 48.70 | 20.96 | 27.74 | 30/06/2024 | kg | Sustainability Manager | |
| Waitemata District Health Board/Northshore Hospital>Waste landfilled LFGR Mixed waste | 5% | 373.47 | 254.84 | 354.80 | -99.96 | 30/06/2024 | kg | Sustainability Manager | Behavioural and educational campaign for medical waste, general waste and recycling, cafeteria composting |
| Waitemata District Health Board/Northshore Hospital>Waste landfilled LFGR Paper and textiles | 5% | 96.57 | 92.26 | 91.74 | 0.52 | 30/06/2024 | tonnes | Sustainability Manager | Behavioural and educational campaign for medical waste, general waste and recycling, PVC recycling (I.V. bags), batteries, metals (scissors/forceps) |
| Waitemata District Health Board/Northshore Hospital>Water supply | 5% | 9.36 | 4.75 | 8.89 | -4.14 | 30/06/2024 | litres | Facilities Manager | Conduct water audits for NSH and WTH (identify leaks), Incorporate water use into utilities management software, Install more efficient industrial dish washers |

| Emissions reduction initiative | Target | Baseline (tCO ₂ e) | 2020/21 (New Baseline Year) | Target (tCO ₂ e) | Progress against target | Target date | Metrics/ KPI | Responsibility | Rationale |
|---|--------|-------------------------------|-----------------------------|-----------------------------|-------------------------|-------------|--------------|------------------------|--|
| | | | | | | | | | (procurement in process) |
| Waitemata District Health Board/Waitakere Hospital>Electricity | 10% | 868.66 | 739.40 | 781.79 | -42.39 | 30/06/2021 | kWh | Facilities Manager | Energy Audits, Utilities monitoring system, LED upgrades, Computer sleep |
| Waitemata District Health Board/Waitakere Hospital>Natural Gas distributed commercial | 10% | 1,054.86 | 1,271.80 | 949.37 | 322.43 | 30/06/2021 | kWh | Facilities Manager | Alternative hot water and steam generation can be adopted |
| Waitemata District Health Board/Waitakere Hospital>Paper use office virgin fibre | 0% | 7.32 | 17.75 | 7.32 | 10.43 | 30/06/2024 | Revenue | Sustainability Manager | Achievable through the application of the reduction projects discussed further below. |
| Waitemata District Health Board/Waitakere Hospital>Waste landfilled LFGR Mixed waste | 5% | 85.61 | 86.72 | 81.32 | 5.40 | 30/06/2024 | Revenue | Sustainability Manager | Behavioural and educational campaign for medical waste, general waste and recycling, cafeteria composting |
| Waitemata District Health Board/Waitakere Hospital>Waste landfilled LFGR Paper and textiles | 5% | 34.33 | 33.12 | 32.62 | 0.50 | 30/06/2024 | Revenue | Sustainability Manager | Behavioural and educational campaign for medical waste, general waste and recycling, PVC recycling (I.V. bags), batteries, metals (scissors/forceps) |
| Waitemata District Health Board/Waitakere Hospital>Water supply | 5% | 4.57 | 2.65 | 4.35 | -1.70 | 30/06/2024 | litres | Facilities Manager | Conduct water audits for NSH and WTH (identify leaks), Incorporate water use into utilities management software, Install more efficient industrial dish washers (procurement in process) |

| Emissions reduction initiative | Target | Baseline (tCO ₂ e) | 2020/21 (New Baseline Year) | Target (tCO ₂ e) | Progress against target | Target date | Metrics/ KPI | Responsibility | Rationale |
|--|--------|-------------------------------|-----------------------------|-----------------------------|-------------------------|-------------|--------------|----------------|-----------|
| Waitemata District Health Board>Taxi (regular) | 5% | 23.37 | 21.51 | 22.20 | -0.69 | 30/06/2024 | km | Finance | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

SPECIFIC EMISSIONS REDUCTION PROJECTS

In order to achieve the reduction targets identified in Table 1 specific projects have been evaluated to achieve these targets. These are detailed below.

The focus for FY2020/2021 was to progress energy transition and optimisation through the new Energy Efficiency Officer role. An Energy Transition Accelerator programme supported by EECA was commenced with the aim of identifying opportunities to transition from natural gas boilers for hot water and steam to electrical alternatives. The ETA will be completed in FY2021/2022 and a work plan developed to progress initiatives. A key enabler for a number of the opportunities identified in the ETA is the upgrade of electrical capacity at the two main campuses.

The Medical Gas Working Group was reconvened in late FY 2020/2021 with projects to identify and reduce the loss and use of medical gases with global warming potentials a key focus in FY 2021/2022.

In FY 2020/2021 WDHB submitted two applications for State Sector Decarbonisation Funding to transition existing fleet to EVs. These were approved for funding in early FY 2021/2022 and work is underway to implement the requirements of the transition.

The requirements of the CNPG have also been a focus to ensure they are met by the 2022 reporting deadline. This includes the review of our organisational and emissions sources inclusions which will be completed by July 2022.

Table 2: Projects to reduce emissions

| Objective | Actions | Responsibility | Completion date |
|--|--|--|-----------------|
| Reduce Natural Gas use for heating purposes and achieve greater energy optimisation. | Complete Energy Transition Accelerator and develop opportunities into projects. | Sustainability and Energy Efficiency Officer | TBC |
| Reduce Medical Gas use - NO2, Desflurane, Seflorane. | Medical Gas working group reconvened and projects to reduce use and loss of medical gases developed. | Medical Gas Working Group | TBC |
| Repurposing and reuse of unused equipment and furniture. | Changes to work areas, refurbishments and capital projects generate significant redundancy of old equipment and furniture. These are actively rehomed within or outside of the organisation. | Sustainability and Decanting Teams | Ongoing |
| Reduce general and medical waste | Establish additional resource to increase diversion of waste from landfill through removal of single use, composting, recycling and supplier return schemes. | Sustainability Manager | Ongoing |
| Roll out of replacement LED lights | Energy inefficient lighting across the organisation is being upgraded to LED alternatives on a rolling maintenance schedule. | Facilities | Ongoing |

| Objective | Actions | Responsibility | Completion date |
|---------------------------|---|---------------------|-----------------|
| Public Transport focus | Work with AT to undertake a travel survey of patients and staff. Review existing public transport links and work with AT to improve. | Sustainability Team | 30/02/2022 |
| Car pooling | Increased number of car pooling car parks and permits issued. | Sustainability Team | 30/06/2020 |
| Reduce transport fuel use | Undertake a fleet optimisation assessment. Incorporate hybrid/electric vehicles in fleet and new chargers using State Sector Decarbonisation Funding to provide capital assistance. | Fleet Manager | Ongoing |

Table 3 highlights emission sources that contributed to poor data quality and describes the actions that will be taken to improve the data quality in future inventories.

Table 3: Projects to improve data quality

| Emissions source | Actions to improve data quality | Responsibility | Completion date |
|--|---|------------------------|-----------------|
| E Bench data | Identify and authorise suppliers to report volume data direct to e bench. | Sustainability Manager | 1/12/2021 |
| Gas and electricity meters | Proposals to install additional gas and electricity metering at the North Shore Hospital Campus have been obtained in order to support energy transition and optimisation projects. . | Sustainability Manager | 30/11/2021 |
| Smart Water Meters and leased property data. | The Sustainability Team are working with Watercare to expand smart metering of water around the organisation and enable access to data. Further clarity is being sought for water data to leased multi-occupancy buildings. | Sustainability Manager | 1/12/2021 |
| Scope 3 Supply Chain | Preparation for 2021/2022 reporting period inclusion of further Scope 3 consumables and services is underway working with Sustainable Health Aotearoa, Health Source and relevant Ministries. | Sustainability Manager | 2/12/2021 |

The emissions inventory identified various emissions liabilities. Table 4 details the actions that will be taken to prevent GHG emissions from these potential emissions sources.

Table 4: Projects to prevent emissions and reduce liabilities

| Emissions source | Actions to reduce liabilities | Responsibility | Completion date |
|--|-------------------------------|----------------|-----------------|
| Fleet Vehicles | Transition to Evs | Fleet Manager | Ongoing |
| *Air conditioning units and chillers include regular | | | |

| Emissions source | Actions to reduce liabilities | Responsibility | Completion date |
|---|-------------------------------|----------------|-----------------|
| servicing (thus no additional requirements) | | | |

UNINTENDED ENVIRONMENTAL IMPACTS

| ENVIRONMENTAL IMPACTS | Project 1 | Project 2 | Project 3 |
|-----------------------------|---|-----------|-----------|
| Resource use | | | |
| Electricity consumption | Increase in electrical consumption due to the electrification of boilers and transition to Evs. | | |
| Fuel consumption | | | |
| Water consumption | | | |
| Wastewater discharge | | | |
| Waste to landfill | | | |
| Air, land and water quality | | | |
| Transport congestion | | | |
| Biodiversity | | | |
| Land use | | | |
| Flooding | | | |
| Local economy | | | |
| | | | |
| | | | |
| Dark Green | Significant positive impact | | |
| Light Green | Some positive impact | | |
| White | No change | | |
| Yellow | Some adverse impact | | |
| Red | Significant adverse impact | | |

KEY PERFORMANCE INDICATORS

Table 5: Key Performance Indicators (KPI)

| KPI | 2017 | 2018 | 2019 | 2020 | 2021 |
|-------------------------------|------------------|------------------|------------------|------------------|------------------|
| Expenditure - 1623683 | 1,628,349,000.00 | 1,739,600,000.00 | 1,850,157,291.00 | 2,000,020,000.00 | 2,000,020,000.00 |
| FTE - 6215 | 6,215.00 | 6,574.00 | 6,663.00 | 7,413.00 | 6,820.10 |
| Turnover/revenue (\$Millions) | 1,640.00 | 1,724.8149 | 1,840.1920 | 1,931.8220 | 1,931.8220 |

Table 6: GHG emissions per KPI

| KPI | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|-----------|-----------|-----------|-----------|-----------|
| Total gross GHG emissions per Expenditure - 1623683 | 0.0000080 | 0.0000073 | 0.0000072 | 0.0000065 | 0.0000063 |
| Total mandatory GHG emissions per Expenditure - 1623683 | 0.0000079 | 0.0000073 | 0.0000071 | 0.0000065 | 0.0000062 |
| Total gross GHG emissions per FTE - 6215 | 2.09 | 1.92 | 1.99 | 1.75 | 1.84 |
| Total mandatory GHG emissions per FTE - 6215 | 2.08 | 1.92 | 1.98 | 1.74 | 1.82 |
| Total gross GHG emissions per Turnover/revenue (\$Millions) | 7.91 | 7.33 | 7.22 | 6.73 | 6.50 |
| Total mandatory GHG emissions per Turnover/revenue (\$Millions) | 7.89 | 7.32 | 7.18 | 6.69 | 6.43 |

GHG foot printing, investigation of feasible projects and reduction targets will also be part of the initial KPIs (qualitative) for the baseline year (by tonnes and %, base lined against floor area and patient events).

MONITORING AND REPORTING

GHG emissions reductions (by tonnes and %, base lined against floor area) will be monitored and reported annually via the Toitū Carbon Reduce process by the Sustainability Manager, reporting to the Director– Facilities Services Group (FSG).

Work has commenced to include all emission sources within the e Bench data management tool. This will enable ongoing assessment of greenhouse gas emissions in order to identify trends and design reduction projects accordingly.

EMISSIONS REDUCTION CALCULATIONS

Table 7: GHG inventory results

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|-----------|-----------|-----------|-----------|-----------|
| Scope 1 | 7,254.58 | 7,383.90 | 8,337.38 | 8,515.97 | 7,552.96 |
| Scope 2 | 3,281.06 | 2,829.25 | 2,576.13 | 2,365.09 | 3,292.37 |
| Scope 3 Mandatory | 2,403.00 | 2,405.01 | 2,304.34 | 2,045.34 | 1,575.94 |
| Scope 3 Additional | 28.28 | 22.63 | 72.12 | 66.90 | 130.43 |
| Scope 3 One time | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total gross emissions | 12,966.91 | 12,640.79 | 13,289.96 | 12,993.30 | 12,551.69 |
| Reporting reductions | | | | | |
| 5-year average (tCO ₂ e) | 12,966.91 | 12,803.85 | 12,965.89 | 12,972.74 | 12,888.53 |
| 5-year average (tCO ₂ e) (scope 1 & 2) | 10,535.63 | 10,374.39 | 10,554.10 | 10,635.84 | 10,677.74 |
| Emissions intensity reductions | | | | | |
| Turnover/revenue (\$Millions) | 1,640.00 | 1,724.81 | 1,840.19 | 1,931.82 | 1,931.82 |
| GDP deflator values Yr1 prices (assumed) | | | | | |
| Adjusted turnover (\$M) | | | | | |
| Emissions intensity (tCO ₂ e/\$M) | 7.91 | 7.33 | 7.22 | 6.73 | 6.50 |
| 5-year average emissions intensity (tCO ₂ e/\$M) | 7.91 | 7.62 | 7.49 | 7.30 | 7.14 |
| Percentage change in absolute emissions | (no data) | -2.52 | 5.14 | -2.23 | -3.40 |
| Percentage change in emissions intensity | (no data) | -7.31 | -1.46 | -6.87 | -3.40 |

PERFORMANCE AGAINST PLAN

As previously identified the Covid-19 pandemic response had significant impacts on the operation and activities of Waitemata DHB, this in turn has skewed the greenhouse gas emissions for that period. The Scope 1, 2 and 3 emissions combined reduced by 694 tCO₂e on baseline and came within 262 tCO₂e.

The greatest area of improvement was in reduced air travel due to NZ border closures. Air travel accounted for 823 tCO₂e in FY19/20 compared to 1,776 tCO₂e in the baseline year, a 54% reduction. This bought emissions from long-haul flights well within the 2024 emissions targets. Domestic flight emissions remain above target.

Also significant was a move away from the medical gas Desflurane towards substitute gases such as sevoflurane and N₂O. Desflurane decreased by 87% as an emission source, exceeding the 2024 target of 621.79 tCO₂e by 529 tCO₂e. However, the use of N₂O increased by 58% on baseline to become the second largest contributor to greenhouse gas emission behind natural gas. Whilst initial investigations have identified that alternative medicines became scarce during and following Covid lockdowns, requiring an increase in N₂O use, this rise will be given greater focus in FY20/21 through a new medical gases working group.

As per previous years the use of natural gas for space and water heating is the largest overall source of emissions from Waitemata DHB. Despite operational disruptions the emissions from this source increased by 393 tCO₂e on baseline at Waitakere Hospital and decreased by just 45 tCO₂e at Northshore Hospital. This is an overall increase of 348 tCO₂e and remains above the 2024 target.

Electricity use experienced a marked decrease at both hospital sites with 916 tCO₂e reduction as a result of closed or limited operations.

Energy will have a renewed focus in FY20/21 with the intention of working closely with EECA and an internal Energy Steering Group to prioritise power saving initiatives and take advantage of funding for decarbonisation.

Emissions related to all waste categories increased in FY19/20 despite improvements in waste segregation and award of new contracts to support increased recycling. Unfortunately, the Covid restrictions required greater use of single use products and PPE and restricted the ability to recycle due to infection concerns. As an example the scheme to recycle PVC products had to be put on hold and has not yet been restarted. A waste review has been commenced in order to map all waste streams, identify inefficiencies and further opportunities to pursue in FY20/21.

An overall reduction in refrigerant use can in part be attributed to limited maintenance or replacement work in FY19/20. In addition R-22 has been phased out of use.

The challenge for Waitemata DHB as we progress into FY20/21 is to manage the post Covid rebound to maximise carbon reduction opportunities. We have learnt that the planet breathes when we slow down our lives and limit our movements. The work of the DHB is crucial to the health of the people in our region and so too is the health of our environment. The intention is to select and develop key learnings from 2020 and increase focus on high impact areas.

The following identifies key carbon management and reduction opportunities for FY20/21:

- Consult with key internal stakeholders regarding carbon management and reduction at Waitemata DHB.

Engage with key suppliers to provide usage information to e-bench to enable ongoing monitoring of carbon emissions and performance;

- Review of current targets within the context of a 1.5 or 2-degreeC warming limit;
- Develop an Energy Steering Group and work with EECA to progress energy optimisation;
- Review our transport policies and work location policies to maximise our ability for remote working or efficient travel;
- Scope and propose a Waitemata Sustainability Steering Group to help integrate sustainability into decision making processes;
- Convene a medical gases working group;
- Contribute to a Sustainable Procurement Group with other DHBs and HealthSource; and
- Review waste management processes to maximise segregation and efficiencies.



GREENHOUSE GAS EMISSIONS INVENTORY REPORT

Toitū carbonreduce and Toitū carbonzero programme



Waitemata District Health Board

Person responsible: Emma Coote, Principal Advisor Sustainability

Prepared by: Emma Coote, Principal Advisor Sustainability

Dated: 21 December 2021

For the period: 01 July 2020 to 30 June 2021

Base year: 01 July 2016 to 30 June 2017

Verification status: <Toitū Envirocare certification team to complete>

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GREENHOUSE GAS EMISSIONS INVENTORY SUMMARY

Table 1: GHG emissions data summary.

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|-----------|-----------|-----------|-----------|-----------|
| Scope 1 | 7,254.58 | 7,383.90 | 8,337.38 | 8,515.97 | 8,473.44 |
| Scope 2 | 3,281.06 | 2,829.25 | 2,576.13 | 2,365.09 | 3,303.77 |
| Scope 3 Mandatory | 2,403.00 | 2,405.01 | 2,304.34 | 2,045.34 | 1,779.65 |
| Scope 3 Additional | 28.28 | 22.63 | 72.12 | 66.90 | 117.93 |
| Scope 3 One time | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total gross emissions | 12,966.91 | 12,640.79 | 13,289.96 | 12,993.30 | 13,674.79 |
| | | | | | |
| Certified green electricity | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Purchased emission reductions | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Net GHG emissions (all scopes) | 12,966.91 | 12,640.79 | 13,289.96 | 12,993.30 | 13,674.79 |
| | | | | | |
| Total gross GHG emissions per Expenditure - 1623683 | 0.0000080 | 0.0000073 | 0.0000072 | 0.0000065 | 0.0000064 |
| Total mandatory GHG emissions per Expenditure - 1623683 | 0.0000079 | 0.0000073 | 0.0000071 | 0.0000065 | 0.0000064 |
| Total gross GHG emissions per FTE - 6215 | 2.09 | 1.92 | 1.99 | 1.75 | 2.01 |
| Total mandatory GHG emissions per FTE - 6215 | 2.08 | 1.92 | 1.98 | 1.74 | 1.99 |
| Total gross GHG emissions per Turnover/revenue (\$Millions) | 7.91 | 7.33 | 7.22 | 6.73 | 6.60 |
| Total mandatory GHG emissions per Turnover/revenue (\$Millions) | 7.89 | 7.32 | 7.18 | 6.69 | 6.54 |

Note: total mandatory emissions includes scope 1, scope 2, and scope 3 (i.e. excludes scope 3 one-time and scope 3 additional). Refer to inventory spreadsheet for full time series.

Table 2: Gross organisation GHG emissions by scope for current measurement year.

| Indicator | tCO ₂ e |
|-------------------|--------------------|
| Scope 1 | |
| Other fuels | 5,153.01 |
| Other gases | 2,346.56 |
| Refrigerants | 195.62 |
| Stationary Energy | 107.52 |

| Indicator | tCO ₂ e |
|----------------------------------|--------------------|
| Transport fuels | 670.72 |
| Scope 2 | |
| Electricity | 3,303.77 |
| Scope 3 | |
| Electricity | 283.17 |
| Other fuels | 291.52 |
| Passenger vehicles - default age | 207.46 |
| Scope 3 Additional | 117.93 |
| Transport - other | 338.21 |
| Transport fuels | 3.35 |
| Waste | 649.05 |
| Water & Wastewater | 6.89 |
| Total | 13,674.79 |

Table 3: GHG emissions inventory summary by scope and business unit.

| Component gas | Scope 1 | Scope 2 | Scope 3 | Total | Removals | After removals |
|------------------|----------|----------|----------|-----------|----------|----------------|
| CH ₄ | 17.71 | 126.40 | 954.67 | 1,098.78 | 0.00 | 1,098.78 |
| CO ₂ | 8,236.80 | 3,172.80 | 932.44 | 12,342.04 | 0.00 | 12,342.04 |
| HFCs | 195.62 | 0.00 | 0.00 | 195.62 | 0.00 | 195.62 |
| N ₂ O | 23.31 | 4.56 | 10.47 | 38.34 | 0.00 | 38.34 |
| NF ₃ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PFCs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SF ₆ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 8,473.44 | 3,303.77 | 1,897.58 | 13,674.79 | 0.00 | 13,674.79 |

Table 4: Mobile and stationary combustion of biomass.

| Biomass | Quantity | Tonnes Biogenic CO ₂ |
|----------------------|----------|---------------------------------|
| No activity recorded | n/a | n/a |

Table 5: Deforestation of two hectares or more.

| Source | Mass | tCO ₂ e |
|---|------|--------------------|
| Deforestation tCO ₂ e (tCO ₂ e) | 0.00 | 0.00 |

Table 6: GHG stock liability (see Table 13: for mass of individual gases).

| Source | Units | Quantity | Potential Liability tCO ₂ e |
|-------------------|-----------|------------|--|
| Diesel commercial | litres | 129,000.00 | 343.62 |
| HFC-134a | kilograms | 2,244.00 | 3,208.92 |
| HFC-32 | kilograms | 177.00 | 119.48 |
| R-410A | kilograms | 48.00 | 100.20 |

Table 7: Land-use liabilities.

| Type of sequestration | Liability tCO ₂ e |
|---|------------------------------|
| Contingent liability (carbon sequestered this reporting period) | 0.00 |
| Potential sequestration liability (total carbon stock) | 0.00 |

Table 8: Renewable electricity generation on-site.

| Renewable generation on-site | kWh generated | tCO ₂ e avoided |
|------------------------------|---------------|----------------------------|
| No activity recorded | n/a | n/a |

Table 9: Purchased emissions reductions.

| Type of emission reductions purchased | Amount | tCO ₂ e |
|--|--------|--------------------|
| Certified green electricity (tCO ₂ e) | 0.00 | 0.00 |
| Purchased emission reductions (tCO ₂ e) | 0.00 | 0.00 |
| Total | 0.00 | 0.00 |

1 INTRODUCTION

This report is the annual greenhouse gas (GHG) emissions¹ inventory report for the named organisation. The inventory is a complete and accurate quantification of the amount of GHG emissions that can be directly attributed to the organisation's operations within the declared boundary and scope for the specified reporting period. The inventory has been prepared in accordance with the requirements of the **measure**-step² of the Programme, which is based on the *Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004)* and *ISO 14064-1:2006 Specification with Guidance at the Organization Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals*³. Where relevant, the inventory is aligned with industry or sector best practice for emissions measurement and reporting.

The inventory boundaries and scope have been designed to align with the Carbon Neutral Government Programme (CNGP) requirements and will be the basis for statutory reporting commencing in 2022.

2 STATEMENT OF INTENT

This inventory forms part of the organisation's commitment to gain Programme certification.

This inventory reports into the Toitū carbonreduce programme. It forms the basis of Waitematā DHBs Carbon Reduction Plan developed in line with the intent of the Climate Change Response (Zero Carbon) Response Amendment Act 2019 and the CNGP. The inventory will be developed throughout FY21/22 in order to ensure inclusion of mandatory Scope 3 emissions in response to the ongoing development of the programme.

3 ORGANISATION DESCRIPTION

Waitematā DHB serves the North Shore, Waitakere and Rodney communities. It is New Zealand's (NZ's) largest DHB by population, serving approximately 623,000 people. Waitematā DHB has the fastest growing population of NZ's 20 DHBs. Its catchment population is currently expected to reach 699,000 by 2028, and 754,000 by 2034. WDHB employs 8611 FTE staff, and provides secondary hospital and community services from the North Shore and Waitakere hospitals, the Mason Clinic and 30 community sites throughout the district.

WDHB's services are organised into six Divisions: Child Woman and Family, Mental Health, Surgical and Ambulatory, Hospital Operations, Medicine and Health of Older People, and Elective Surgery Centre. There are around 60 specialities across the six Divisions. WDHB also contracts with two Primary Health Organisations (PHOs), multiple community providers, and Non-Government Organisation (NGO) partners. WDHB conducted 131,551 inpatient discharges and 351,009 outpatient attendances in 2020/2021 (Figures to be updated following audit). The combined facilities provide 829 total overnight and day beds between the two main hospital sites and another 116 beds at the Mason Clinic.

Waitemata DHB is committed to providing the Best Care for Everyone. Waitemata DHB acknowledges that people are at the centre of everything we do. People live within a social community and an economy, all of which ultimately exist within, and rely upon, the natural environment. Waitemata DHB is also Enviro-Mark Gold certified.

¹ Throughout this document "emissions" means "GHG emissions".

² Programme refers to the Toitū carbonreduce and the Toitū carbonzero programme.

³ Throughout this document 'GHG Protocol' means the *GHG Protocol Corporate Accounting and Reporting Standard* and 'ISO 14064-1:2006' means the international standard *Specification with Guidance at the Organizational Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals*.

To Waitemata DHB, sustainability means operating in a way that meets the needs of the people without jeopardising the fabric of the social community, the economy or the natural environment, so that future generations continue to be able to meet their needs. It is about long-term thinking.

Waitemata DHB acknowledges that a healthy natural environment and a well-constructed built environment results in a positive impact on overall community health through improved mental health and well-being, improved opportunities for physical activity, improved social contact and improved children's development.

Waitemata DHB Sustainability Policy is based around two key principles. In all activities, Waitemata DHB will seek to:

1. Maximise efficiency.
2. Minimise harm.

Waitemata DHB's key sustainability target areas are:

- Sustainable Procurement
- Energy and Carbon Management
- Waste Management
- Water Management
- Designing the Built Environment.

4 ORGANISATIONAL BOUNDARIES INCLUDED FOR THIS REPORTING PERIOD

Organisational boundaries were set with reference to the methodology described in the GHG Protocol and ISO 14064-1:2006 standards. The GHG Protocol allows two distinct approaches to be used to consolidate GHG emissions: the equity share and control (financial or operational) approaches. The Programme specifies that the operational control consolidation approach should be used unless otherwise agreed with the Programme.

An operational control consolidation approach was used to account for emissions. The organisational boundary includes both owned and leased premises. All of the business units listed are within the operational boundary.

Boundary – Figure 1 below shows the organisational structure used for describing the organisation's greenhouse gas (GHG) emissions inventory, and the business units included in the inventory in the context of the entire organisational profile. The parts of the structure (business units) in blue have been identified as being within this emissions inventory. Business units excluded from the inventory are shown in orange.



Figure 1: Organisational structure.

Waitematā DHB provides hospital and community services in the areas of North Shore, Waitakere and Rodney including North Shore Hospital, Waitakere Hospital and the Mason Clinic. The DHB provides child disability, forensic psychiatric services, school dental services, and alcohol and drug services to the residents of the overall Auckland region on behalf of all three Metro Auckland DHBs. WDHB contract other DHBs, particularly Auckland DHB, to provide some tertiary services, e.g. cardiac surgery and radiation oncology services. Services are provided across four owned sites and 40 leased sites. The leased sites include multi-tenanted buildings and both fixed and mobile units for our Auckland Regional Dental Services (ARDS) facilities. ARDS units are primarily located at school sites across the Auckland Region. The following summarises the details of the four owned sites. The Site Source Matrix provides additional details relating to all sites and emission source data reported.

North Shore Hospital, 124 Shakespeare Rd, Takapuna, Auckland 0620

A large hospital providing 575 surgical and general medical treatment beds. It has operating 16 theatres (one specialised in obstetric care), an emergency department, an Assessment and Diagnostic Unit, an intensive care centre, an Elective Surgery Centre, Clinical Skills Centre and a coronary care, as well as a maternity and special care baby unit.

Waitakere Hospital, 55-75 Lincoln Rd, Henderson, Auckland 0610

A general hospital, providing 254 surgical and general medical treatment beds. It has medical and coronary care beds, a maternity unit and a surgical unit with 8 operating theatres. The hospital's Emergency Department is open to both adult and paediatric patients.

Mason Clinic, 81 Carrington Rd, Mt Albert, Auckland

Waitematā District Health Board provides forensic mental health services to residents of the Northern region and forensic intellectual disability services for those north of Taupo, on behalf of the other regional DHBs at the Mason Clinic in Pt Chevalier Auckland. The existing Mason Clinic campus is currently 3.9 hectares. The campus currently has nine accommodation buildings providing 121 beds with varying security levels and functionality.

Asian Health Services, 3 Mary Poynton Crescent, Takapuna, Auckland

Asian Health Services is a support service which aims to improve access to healthcare services, patient experience, and the health status for culturally and linguistically diverse Asian patients / consumers and their families within the Waitemata district. It is a non-clinical operation.

Table 10: Brief description of business units in the certifying entity.

| Business unit | Address | Purpose |
|-----------------------------|-------------------------------|--|
| North Shore Hospital Campus | 124 Shakespeare Rd, Takapuna | General Hospital and Surgical Health care. |
| Waitakere Hospital Campus | 55 - 75 Lincoln Rd, Waitakere | General Hospital and Surgical Health care. |
| Mason Clinic | 81 Carrington Rd, Mt Albert | Forensic Psychiatric care |
| Asian Health Services | 3 Marypoynton Road, Takapuna | Asian Health Services |
| Leased Sites | Multiple addresses | Community based healthcare services. |

5 ORGANISATIONAL BUSINESS UNITS EXCLUDED FROM INVENTORY

All business units are included in the GHG emissions boundary. Leased sites were added for the reporting period 2020/2021. However, the following sites are not included:

- ARDS units in the Counties Manukau DHB region. Waitemata DHB provide some staff for these units but do not have operational control.
- New leased CADS sites not operational within financial year 2019/2020.

6 GHG EMISSIONS SOURCE INCLUSIONS

The GHG emissions sources included in this inventory are those required for Programme certification and were identified with reference to the methodology described in the GHG Protocol and ISO14064-1:2006 standards. Identification of emissions sources was achieved via personal communications with Waitemata District Health Board staff, and cross-checked against operational expenditure records for the reporting period. These records were viewed in order to see what activities may be associated with emissions from all of the operations.

As adapted from the GHG Protocol, these emissions were classified into the following categories:

- **Direct GHG emissions (Scope 1):** GHG emissions from sources that are owned or controlled by the company.
- **Indirect GHG emissions (Scope 2):** GHG emissions from the generation of purchased electricity, heat and steam consumed by the company.
- **Indirect GHG emissions (Scope 3):** GHG emissions required by the Programme that occur as a consequence of the activities of the company but occur from sources not owned or controlled by the company. Inclusion of other Scope 3 emissions sources is done on a case-by-case basis.

After liaison with the organisation, the emissions sources in Table 11 have been identified and included in the GHG emissions inventory.

Table 11: GHG emissions sources included in the inventory

| Business unit | GHG emissions source | GHG emissions level scope | Data source | Data collection unit | Uncertainty (description) |
|------------------------------------|---|---------------------------|---|----------------------|--|
| Waitemata DHB (general operations) | Air travel domestic (average) | Scope 3 | FCM Travel and CME report (internal - Finance) | pkm | Low, billed information and Medium, financial estimation |
| Waitemata DHB (general operations) | Air travel long haul (business) | Scope 3 | FCM Travel and CME report (internal - Finance) | pkm | Low, billed information and Medium, financial estimation |
| Waitemata DHB (general operations) | Air travel long haul (econ) | Scope 3 | FCM Travel and CME report (internal - Finance) | pkm | Low, billed information and Medium, financial estimation |
| Waitemata DHB (general operations) | Air travel long haul (econ+) | Scope 3 | FCM Travel and CME report (internal - Finance) | pkm | Low, billed information and Medium, financial estimation |
| Waitemata DHB (general operations) | Air travel short haul (econ) | Scope 3 | FCM Travel and CME report (internal - Finance) | pkm | Low, billed information and Medium, financial estimation |
| Waitemata DHB (general operations) | Air travel short haul b/f class | Scope 3 | FCM Travel and CME report (internal - Finance) | pkm | Low, billed information and Medium, financial estimation |
| Waitemata DHB (general operations) | Car Average (All fuel types) | Scope 3 | Work Related Expenses (WRE) Report (internal - Finance) | km | Medium, financial estimation |
| Waitemata DHB (general operations) | CO ₂ | Scope 1 | Air Liquide | kg | Low, based on usage |
| Waitemata DHB (general operations) | Desflurane | Scope 1 | Baxter | kg | Low, based on usage |
| Waitemata DHB (general operations) | Diesel | Scope 1 | BP via Fleetwise | L | Low, fuel cards |
| Waitemata DHB (general operations) | HCFC-22 (R-22, Genetron 22 or Freon 22) | Scope 1 | Total Refrigeration | kg | Low, based on usage |

| Business unit | GHG emissions source | GHG emissions level scope | Data source | Data collection unit | Uncertainty (description) |
|------------------------------------|------------------------------|---------------------------|--|----------------------|------------------------------|
| Waitemata DHB (general operations) | HFC-134a | Scope 1 | Total Refrigeration & AHI Carriers | kg | Low, based on usage |
| Waitemata DHB (general operations) | Isoflurane | Scope 1 | Baxter | kg | Low, based on usage |
| Waitemata DHB (general operations) | N ₂ O | Scope 1 | Air Liquide | kg | Low, based on usage |
| Waitemata DHB (general operations) | Petrol premium | Scope 1 | BP via Fleetwise | L | Low, fuel cards |
| Waitemata DHB (general operations) | Petrol | Scope 1 | BP via Fleetwise | L | Low, fuel cards |
| Waitemata DHB (general operations) | Petrol | Scope 3 | Work Related Expenses (incl CME) Report (Finance – Internal) | L | Low, fuel cards |
| Waitemata DHB (general operations) | R-407C | Scope 1 | Total Refrigeration | kg | Low, based on usage |
| Waitemata DHB (general operations) | R-407F | Scope 1 | Total Refrigeration | kg | Low, based on usage |
| Waitemata DHB (general operations) | R-410A | Scope 1 | Total Refrigeration & AHI Carriers | kg | Low, based on usage |
| Waitemata DHB (general operations) | Sevoflurane | Scope 1 | Baxter | kg | Low, based on usage |
| Waitemata DHB (general operations) | Taxi (regular) | Scope 3 | Work Related Expenses (incl CME) Report (Finance – Internal) | \$ | Medium, financial estimation |
| Northshore Hospital | Diesel stationary combustion | Scope 1 | Mini Tankers | L | Low, based on usage |

| Business unit | GHG emissions source | GHG emissions level scope | Data source | Data collection unit | Uncertainty (description) |
|---------------------|--|---------------------------|--|----------------------|---------------------------|
| Northshore Hospital | Electricity | Scope 2 | Meridian Energy | kWh | Low, based on usage |
| Northshore Hospital | Natural Gas distributed commercial | Scope 1 | Genesis Energy | kWh | Low, based on usage |
| Northshore Hospital | Paper use - default | Scope 3 Additional | healthAlliance (FujiXerox and OfficeMax) | t | Low, based on usage |
| Northshore Hospital | Waste landfilled LFGR Mixed waste | Scope 3 | InterWaste & Waste Management | t | Low, based on usage |
| Northshore Hospital | Waste landfilled LFGR Paper and textiles | Scope 3 | InterWaste & Waste Management | t | Low, based on usage |
| Northshore Hospital | Water supply | Scope 3 | Watercare | m ³ | Low, based on usage |
| Waitakere Hospital | Electricity | Scope 2 | Meridian Energy | kWh | Low, based on usage |
| Waitakere Hospital | Natural Gas distributed commercial | Scope 1 | Genesis Energy | kWh | Low, based on usage |
| Waitakere Hospital | Paper use - default | Scope 3 Additional | healthAlliance (FujiXerox and OfficeMax) | t | Low, based on usage |
| Waitakere Hospital | Waste landfilled LFGR Mixed waste | Scope 3 | InterWaste & Waste Management | t | Low, based on usage |
| Waitakere Hospital | Waste landfilled LFGR Paper and textiles | Scope 3 | InterWaste & Waste Management | t | Low, based on usage |
| Waitakere Hospital | Water supply | Scope 3 | Watercare | m ³ | Low, based on usage |
| Mason Clinic | Electricity | Scope 2 | Meridian Energy | kWh | Low, based on usage |
| Mason Clinic | Natural Gas distributed commercial | Scope 1 | Genesis Energy | kWh | Low, based on usage |
| Mason Clinic | Paper use - default | Scope 3 Additional | healthAlliance (FujiXerox and OfficeMax) | t | Low, based on usage |

| Business unit | GHG emissions source | GHG emissions level scope | Data source | Data collection unit | Uncertainty (description) |
|-----------------------|--|---------------------------|---|----------------------|--|
| Mason Clinic | Waste landfilled LFGR Mixed waste | Scope 3 | InterWaste & Waste Management | t | Low, based on usage |
| Mason Clinic | Waste landfilled LFGR Paper and textiles | Scope 3 | InterWaste & Waste Management | t | Low, based on usage |
| Mason Clinic | Water supply | Scope 3 | Watercare | m ³ | Low, based on usage |
| Asian Health Services | Electricity | Scope 2 | Trustpower | kWh | Low, based on usage |
| Asian Health Services | Paper use - default | Scope 3 Additional | healthAlliance (FujiXerox and OfficeMax) | t | Low, based on usage |
| Asian Health Services | Waste landfilled LFGR Mixed waste | Scope 3 | InterWaste & Waste Management | t | Low, based on usage |
| Asian Health Services | Waste landfilled LFGR Paper and textiles | Scope 3 | InterWaste & Waste Management | t | Low, based on usage |
| Asian Health Services | Water supply | Scope 3 | Watercare | m ³ | Low, based on usage |
| Leased sites | Electricity | Scope 2 | Meridian Energy | kWh | Low, based on usage |
| Leased sites | Paper use - default | Scope 3 Additional | healthAlliance (FujiXerox and OfficeMax) | t | Low, based on usage |
| Leased sites | Waste landfilled LFGR Mixed waste | Scope 3 | InterWaste & Waste Management or landlord controlled. | t | Low, based on usage |
| Leased sites | Waste landfilled LFGR Paper and textiles | Scope 3 | InterWaste & Waste Management or landlord controlled. | t | Low, based on usage |
| Leased sites | Water supply | Scope 3 | Watercare or estimated | m ³ | Low, based on usage, Medium, estimate from comparable properties |

6.1 Other emissions – HFCs, PFCs and SF₆

We use hydrofluorocarbons (HFCs) in our operations and these have been included in the inventory.

No operations use perfluorocarbons (PFCs), Nitrogen Trifluoride (N₃) nor sulphur hexafluoride (SF₆), therefore no holdings of these are reported and no emissions from these sources are included in this inventory.

6.2 Other emissions – biomass

No biomass is combusted in the operations and therefore no emissions from the combustion of biomass are included in this inventory.

6.3 Other emissions – deforestation

No deforestation has been undertaken by the organisation on land it owns and that is included in this inventory. Therefore no emissions from deforestation are included in this inventory.

6.4 Pre-verified data

Pre-verified data is included in this inventory. FCM air travel reports: FCM travel provide reports using methodology independently verified by Toitū Envirocare. The information is stated to be considered suitable for use in an inventory seeking compliance to ISO 14064-1:2006.

7 GHG EMISSIONS SOURCE EXCLUSIONS

Emissions sources in Table 12 have been identified and excluded from the GHG emissions inventory.

The following table details those emissions sources that have been excluded from the inventory. Each of these has been assessed against the inventory boundary, the nature and significance of the emission and the reliability of the data available. In some cases the source has been identified as de minimis and therefore of little relevance to Waitemata DHBs carbon emission footprint.

It is the intention of WDHB to continue to include additional emissions in the 2021/2022 reporting period in line with the requirements of the CNGP.

Table 12: GHG emissions sources excluded from the inventory

| Business unit | GHG emissions source | GHG emissions level scope | Reason for exclusion |
|---------------|----------------------------------|---------------------------|---|
| Waitemata DHB | Freight services | Scope 3 additional | Contracted by the supplier and is mostly Free Into Store (FIS), therefore it is not a mandatory requirement to be included in the inventory |
| Waitemata DHB | Staff commuting to and from work | Scope 3 additional | Data is unavailable, not a mandatory requirement to be included in the inventory |
| Waitemata DHB | Postage and couriers | Scope 3 mandatory | de minimis* |
| Waitemata | Specimens and | Scope 3 | Regional contracts for the courier service, frequent |

| Business unit | GHG emissions source | GHG emissions level scope | Reason for exclusion |
|-----------------------------------|---|---------------------------|--|
| DHB | sample collections | mandatory | deliveries yet very small volume. This service is often shared with Auckland DHB and CMDHB so is difficult to assess total activity for Waitemata DHB. Anticipated to be de minimis. |
| Waitemata DHB | Contracted services | Scope 3 additional | Services such as cleaners and laundry service excluded due to being contracted out, not a mandatory requirement to be included in the inventory. |
| Waitemata DHB | Refrigerant holdings in domestic heat pumps | Scope 1, Liability | Numerous domestic size heat pumps and deemed to be less than 3kg of refrigerant holdings, not a mandatory requirement to be included in the inventory |
| Waitemata DHB | Waste water | Scope 3 mandatory | de minimis*. To be included in the 2021/2022 GHG inventory to meet CNGP reporting requirements. |
| Waitemata DHB | Employee Commuting | Scope 3 additional | The current quality of the data is insufficient to report. Employee commuting will be included in the GHG inventory for 2021/2022 as part of the CNGP reporting requirements. |
| Waitemata DHB | Working from Home | Scope 3 additional | The current quality of the data is insufficient to report. Employee commuting will be included in the GHG inventory for 2021/2022 as part of the CNGP reporting requirements. |
| Waitemata DHB | Materials and waste | Scope 3 additional | The current quality of the data is insufficient to report. |
| | | | |
| * consistent with the other DHBs. | | | |

8 DATA COLLECTION AND UNCERTAINTIES

Table 11 provides an overview of how data were collected for each GHG emissions source, the source of the data and an explanation of any uncertainties or assumptions made. Estimated numerical uncertainties are reported with the emissions calculations and results.

All data was calculated using Toitū emanage and GHG emissions factors as provided by the Programme (see Appendix 1 - data summary.xls).

A calculation methodology has been used for quantifying the GHG emissions inventory using emissions source activity data multiplied by GHG emissions or removal factors.

Where available all data was sourced direct from suppliers and verified against internal information.

For some leased sites metered or supplier data was not available. In these cases estimates were made using comparable facilities for electrical and water consumption.

CME travel data is based on a financial report. In order to estimate the travel within that data an assessment of \$ per km or consumption was undertaken using verified FCM data and tested against more complete data from other DHBs. Calculation assumptions and bases have been provided with each of these emission reports.

9 GHG EMISSIONS CALCULATIONS AND RESULTS

GHG emissions for the organisation for this measurement period are provided in Table 1 where they are stated by greenhouse gas, by scope, by business unit and as total emissions.

Table 1 illustrates that overall emissions resulting from Waitematā DHB operations have increased by 681t CO₂e or 5.2% compared to 2019/20 emissions and by 707t CO₂e or 5.5% compared to the baseline year 2016/17. Between 2020/2021 and the previous reporting period Scope 1 sources decreased marginally by 0.5%, however Scope 2 emissions increased by nearly 40% and additional 3 emission sources increased by 76%. Scope 3 Mandatory emissions are 13% lower than the previous year.

From the previous reporting year the intensity of emissions in relation to our KPI indicators reduced in relation to financial data (expenditure -1.5% and revenue -2%) and increased in relation to FTE. (14%). These results can be explained in part by the increased organisational boundary and reduced FTE. Emissions per unit of expenditure decreased by 2% and per FTE employee increased by 4% from the baseline year.

Scope 1 emissions remain the largest portion of our emission profile. Figure 4 shows the largest 10 emission sources with natural gas used in our facilities for heating purposes the clear front runner. An increase in the use of the anesthetic gas N₂O has elevated it to the second largest greenhouse gas source followed by electricity.

The greatest change in the ranking of emission sources is the reduced air travel related emissions. Long haul flights were the fourth largest source of emissions for the organization but this year ranked sixth. This reduction is a clear result of Covid 19 travel restrictions.

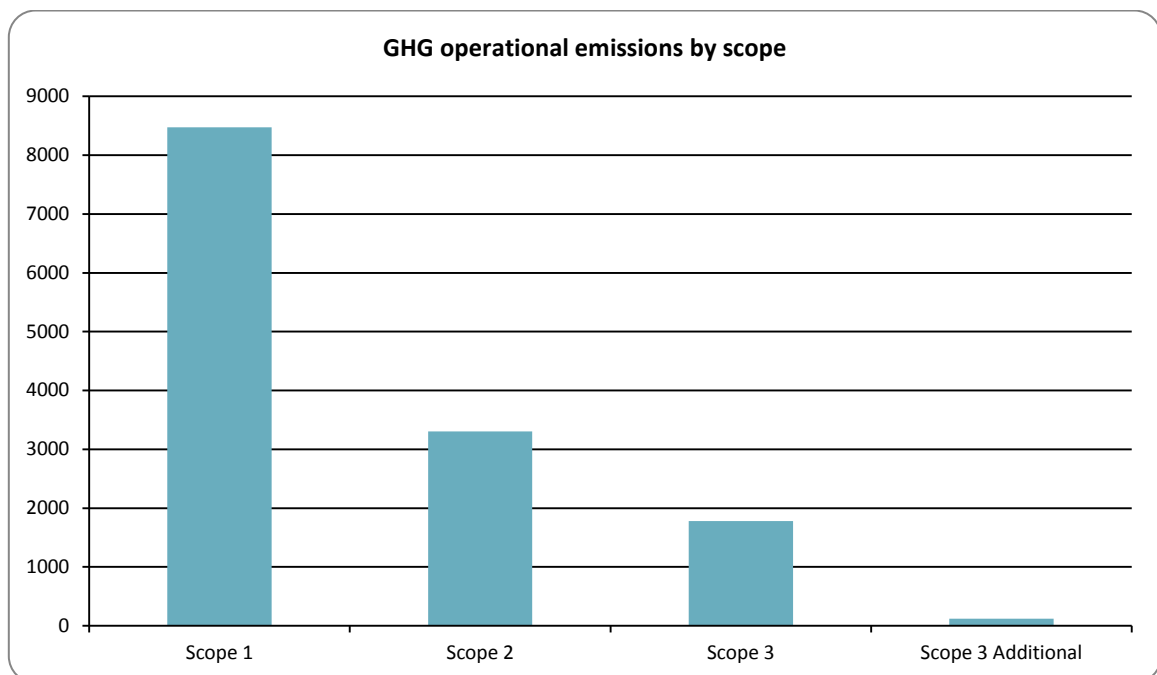


Figure 2: GHG emissions (tonnes CO₂e) by scope

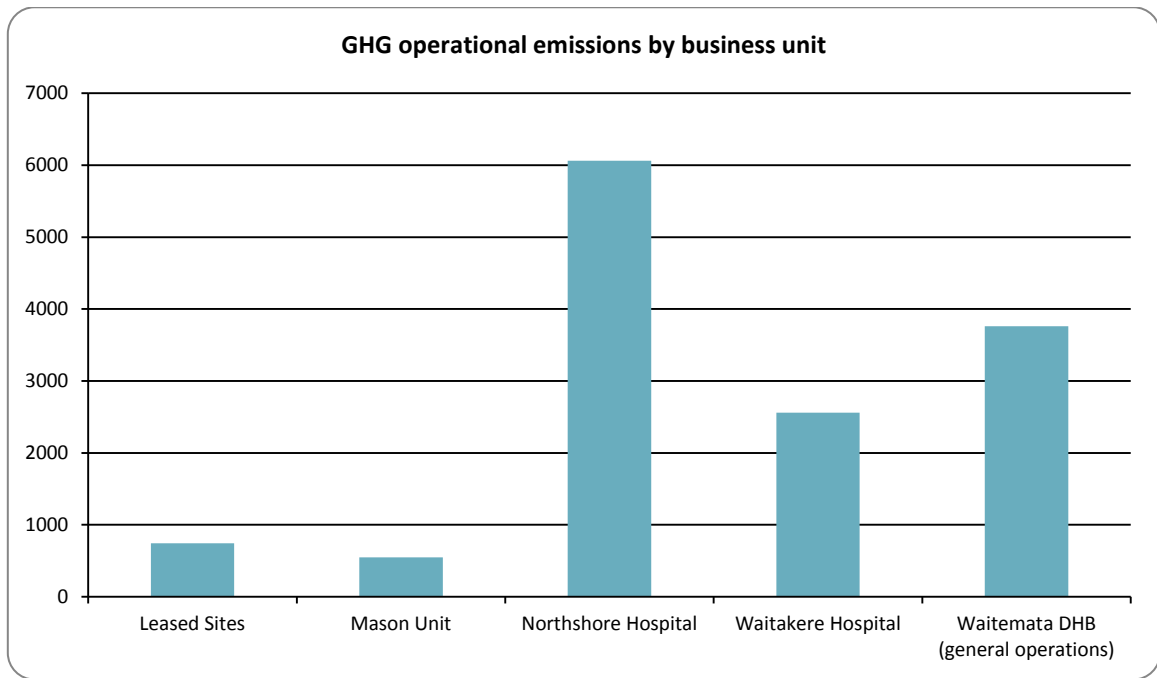


Figure 3: GHG emissions (tonnes CO₂e) by business activity.

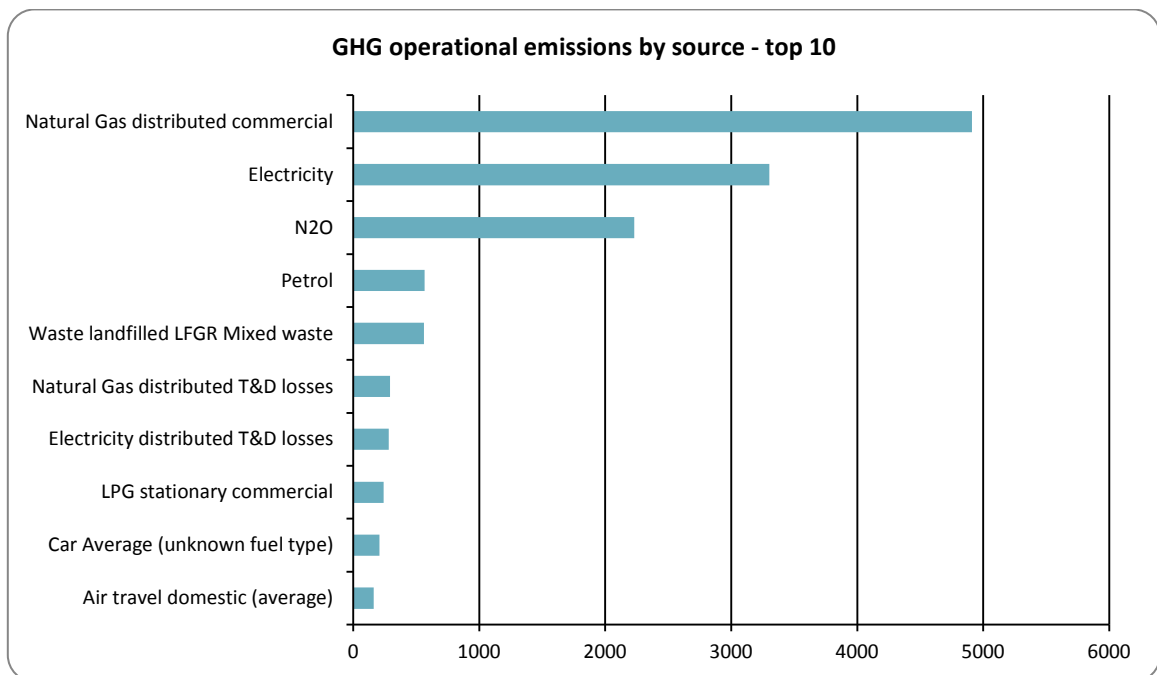


Figure 4: GHG emissions sources by source.

The inventory report and any GHG assertions are expected to be verified by a Programme-approved, third-party verifier. The level of assurance is reported in a separate Assurance Statement provided to the directors of the certified entity.

10 EMISSIONS REDUCTIONS AND REMOVALS ENHANCEMENT

GHG emissions for the organisation for the current reporting period are detailed in Table 1. FY 2020/21 was again disrupted by the national and global response to the Covid 19 pandemic. This makes analysis of the figures captured through the greenhouse gas inventory difficult. During the two lockdowns in the financial year operations at the hospital were kept to a minimum and non essential staff were requested to work from home. This reduced overall energy requirements, water use and waste generation but increased elements of work related travel due to home visits and reduced shuttles

Overall emissions increased by just over 5% from baseline and 2019/2020. The increase is likely a result of the inclusion of all leased sites in the inventory particularly in light of the increased Scope 2 electricity emissions. .

Because of the disruption caused by the Covid response a full explanation of the trends seen over the reporting period requires further investigation. Key focus areas will be explored in more detail within the Emissions Management and Reduction Plan.

The organisation will have an updated management plan in place for managing and reducing emissions in the future in order to maintain Programme recertification.

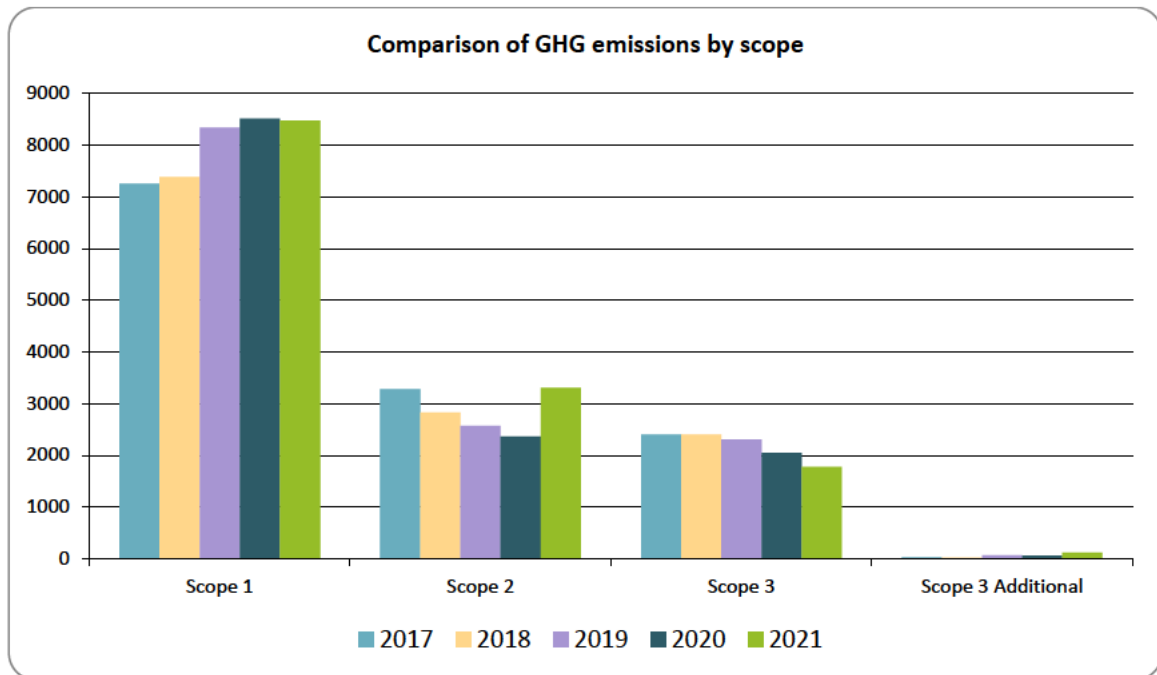


Figure 5: Comparison of GHG operational emissions by scope between the reporting periods.

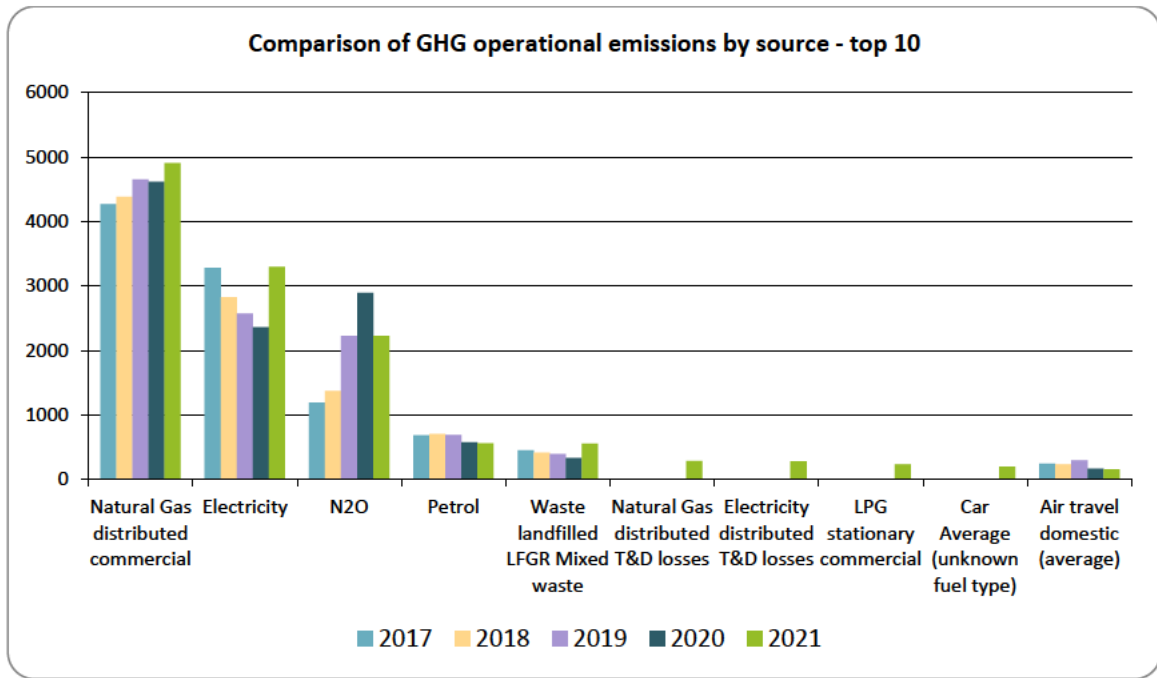


Figure 6: Comparison of GHG operational emissions by emissions sources between the reporting periods.

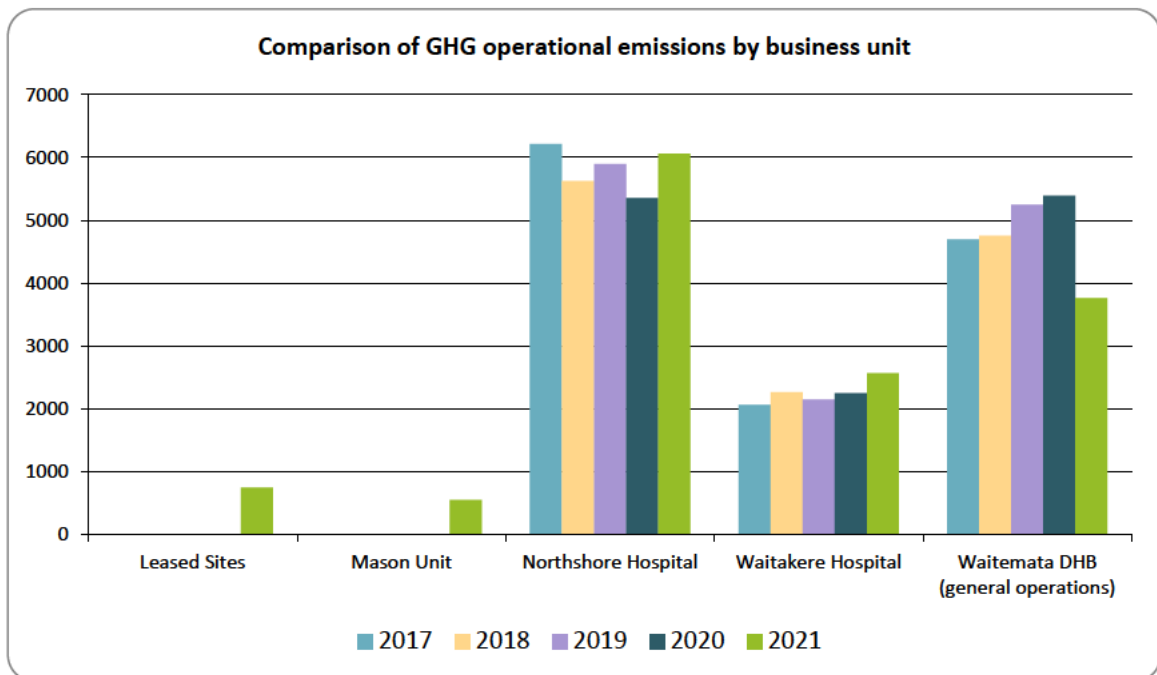


Figure 7: Comparison of emissions by business unit between the reporting periods.

11 LIABILITIES

11.1 GHG stocks held⁴

HFCs, PFCs and SF₆ represent GHGs with high global warming potentials. Their accidental release could result in a large increase in emissions for that year, and therefore the stock holdings are reported under the Programme (Table 13).

GHG stocks have been reported in this inventory and added into the GHG Stock Liability questionnaire. Stocks are based on main chiller operating recommendations and diesel storage capacity at our sites.

Table 13: HFCs, PFCs and SF₆ GHG emissions and liabilities.

| Business Unit | Source | Units | Amount held - start of reporting period | Amount held - end of reporting period | Potential Liability tCO ₂ e |
|------------------------------------|-------------------|-----------|---|---------------------------------------|--|
| Waitemata DHB (general operations) | Diesel commercial | litres | 129000 | 129000 | 343.61988 |
| Waitemata DHB (general operations) | HFC-134a | kilograms | 2,244.00 | 2,244.00 | 3,208.92 |
| Waitemata DHB (general operations) | HFC-32 | kilograms | 177.00 | 177.00 | 119.48 |
| Waitemata DHB (general operations) | R-410A | kilograms | 48.00 | 48.00 | 100.20 |

11.2 Land-use change

Organisations that own land subject to land-use change may achieve sequestration of carbon dioxide through a change in the carbon stock on that land. Where a sequestration is claimed, then this also represents a liability in future years should fire, flood or other management activities release the stored carbon.

Land-use change has not been included in this inventory.

12 PURCHASED REDUCTIONS

Purchased reductions could include certified “green” electricity, verified offsets or other carbon-neutral-certified services. Organisations may choose to voluntarily purchase carbon credits (or offsets) or green electricity that meets the eligibility criteria set by a regulatory authority. The reported gross emissions may not be reduced through the purchase of offsets or green tariff electricity.

(no answer provided)

(no answer provided)

⁴ HFC stock liabilities for systems under 3 kg can be excluded.

(no answer provided)

13 DOUBLE COUNTING / DOUBLE OFFSETTING

Double counting/offsetting refers to situations where:

- Parts of the organisation have been prior offset.
- The same emissions sources have been reported (and offset) in both organisation and product.
- Emissions have been included and potentially offset in the GHG emissions inventories of two different organisations, e.g. a company and one of its suppliers/contractors. This is particularly relevant to indirect (Scope 2 and 3) emissions sources.
- The organisation generates renewable electricity, uses or exports the electricity and claims the carbon benefits.
- Emissions reductions are counted as removals in an organisation's GHG emissions inventory and are counted or used as offsets/carbon credits by another organisation.

Double counting / double offsetting has not been included in this inventory. The potential for double counting within the current GHG inventory scope is low.

14 REFERENCES

International Organization for Standardization, 2006. ISO14064-1:2006. Greenhouse gases – Part 1: Specification with guidance at the organisation level for quantification and reporting of greenhouse gas GHG emissions and removals. ISO: Geneva, Switzerland.

World Resources Institute and World Business Council for Sustainable Development, 2004 (revised). The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard. WBCSD: Geneva, Switzerland.

15 APPENDIX 1: GHG EMISSIONS DATA SUMMARY

More GHG emissions data is available on the accompanying spreadsheet to this report:

(no documents provided)