# EMISSIONS MANAGEMENT AND REDUCTION PLAN

Toitū carbonreduce and Toitū carbonzero programme

## Waikato Regional Council

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*Approved for release by:*

Karen Bennett, Manager of the Chief Executive's Office

*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 Waikato Regional Council and forms the manage step part of the organisation's application for Programme certification.[1][2]

## RATIONALE

The council's mission "working together to build a Waikato region that has a healthy environment, strong economy and vibrant communities" signals the council's commitment to valuing our natural capital and the ecosystem services it provides for people's wellbeing and economic activity. Sustainability principles and values are interwoven into our policies, the services we provide, and the way we operate. The United Nations Sustainable Development Goals were the starting point for the council's 2016-2019 Strategic Direction, and tackling climate change is an integral part of this.

As well as having many direct and indirect effects on the communities we work in, climate change will directly affect the work of the Waikato Regional Council.

In New Zealand, regional councils have statutory responsibilities regarding climate adaptation, particularly with a view to natural hazards, infrastructure and assets management. In addition, it has been recognised that regional and local councils can also contribute to climate mitigation and transition to a low carbon economy, and address the opportunities and risks that climate change presents.

WRC is a signatory to the Local Government New Zealand's 2017 Leaders Climate Change Declaration outlining the key commitments and actions that councils plan to undertake to support action on climate change. Aligned to this, WRC completes a regional greenhouse gas inventory each year, to enhance its understanding of the region's carbon profile and facilitate discussion regarding options and pathways for transition to a lower carbon regional economy.

At a corporate level, WRC has committed to managing and reducing greenhouse gas emissions. This means that as well as reducing our emissions to help mitigate climate change, we will also need to adapt our services and operations to changing weather and climate conditions.

In order to manage and reduce greenhouse gas emissions and other environmental impacts of our operations, the Waikato Regional Council encourages staff (and the wider Waikato community) to engage with sustainability issues and initiatives. The organisation also seeks to ingrain environmental best practices into operations, systems and decision-making.

Details of commitments and sustainability policies are publicly available and can be found online or through hard copies of documents located at the organisation's main office (401 Grey Street, Hamilton East).

This emissions management and reduction programme applies only to WRC's corporate activities and does not include regional policy interventions.

## TOP MANAGEMENT COMMITMENT

Waikato Regional Council is aiming for sustainability to be integral to all activities, including its customer and stakeholder relationships and approach to risk management. Sustainability is part of the organisational values of doing the right thing for people and planet, and making a positive difference to Waikato and New Zealand by making sure our activities add value environmentally,

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

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

socially and economically. As part of its commitment to improving its sustainability performance, the Council's executive leadership team (ELT) has committed to managing and reducing emissions, and reporting on progress, through participation in the Toitū carbonreduce programme. The ELT are kept informed of emissions reduction initiatives and progress towards emissions reduction goals through regular reporting.

## PERSON RESPONSIBLE

Karen Bennett, Manager of the Chief Executive's Office, is the ELT member responsible for overseeing overall emissions management and reduction. She is supported by a team of sustainability champions, comprising members with functional responsibility for emissions management and reduction, and other staff with a passion for improving sustainable practices throughout the organisation. Expertise and support is also provided by contractors and external organisations (including E-Bench and Toitū).

## AWARENESS RAISING AND TRAINING

Staff and contractors are made aware of our emissions reduction commitments through internal communications and campaigns, as well as publicly available reports and communications. New staff are informed via the staff induction process.

Staff who provide emission source data or who have major influence on the management and reduction of emissions are invited to be part of the Core Sustainability Team, who meet on a monthly basis to discuss options for and progress towards emissions reduction. All staff have opportunities to engage in campaigns and/or workshops and/or training to support them reduce the emissions and other environment-related impacts of their role and activities.

## SIGNIFICANT EMISSIONS SOURCES

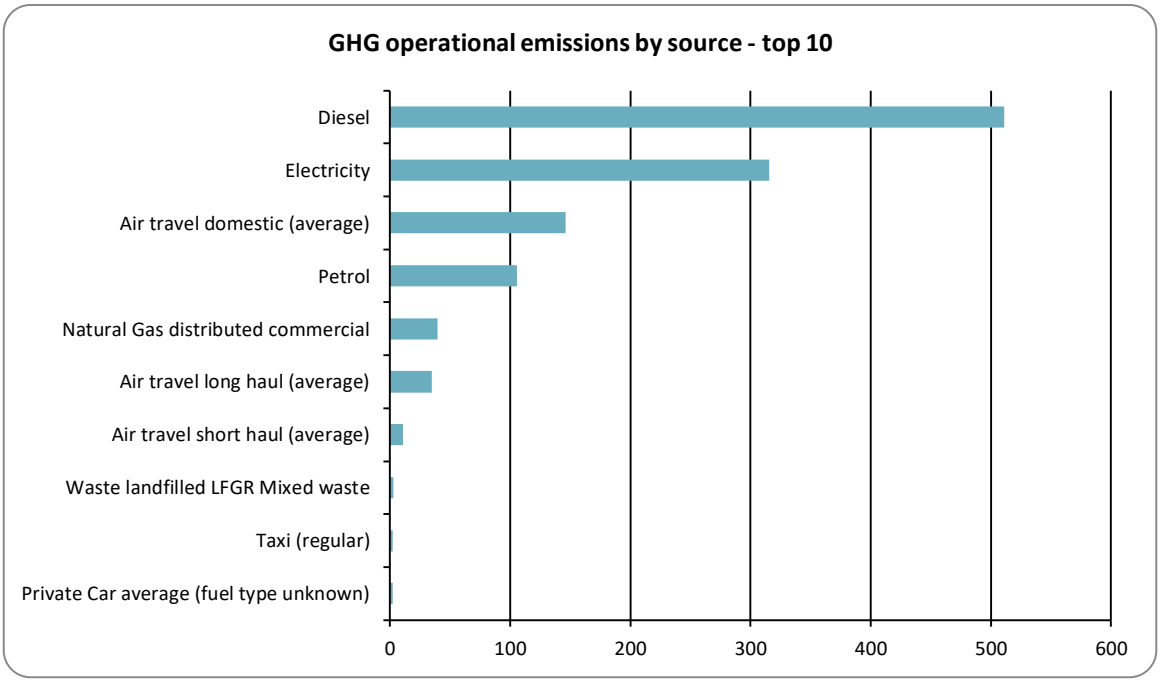


**Figure 1**: GHG emissions by source.

The Emissions Inventory Report identifies the most significant ongoing emissions sources as diesel and electricity. Air travel (domestic) and petrol use are also significant contributors. Waikato Regional Council has direct control over all the emissions sources mentioned above, and the organisation is using a mix of behaviour, operational and investment interventions to reduce emissions from these areas.

Looking more closely at emissions sources through data available on E-Bench, it has been noted that the activities of the Integrated Catchment Management Directorate (specifically the flood pumps, as well as diesel vehicle use) are the greatest sources of emissions. Another large contributor to emissions is electricity use in buildings, which is managed by the Finance Directorate. Vehicle travel makes up a notable proportion of emissions from every Directorate.

All these factors have been considered in order to develop a Carbon Emissions Management and Reduction Programme that is appropriate and effective for the organisation.

## 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).

Targets for emissions reduction are developed to coincide with updates for the Long Term Plan (LTP), which take place every three years. Progress will be monitored continuously and reviewed on an annual basis to ensure the organisation is staying on track to meet these targets.

Our original target has been to reduce emissions intensity by 2% per year from the base year, which may involve steady reductions and/or larger reductions followed by maintenance of reductions. Note: reductions are to be compared to base year, rather than the previous year.

However, this year we have also been exploring the development of targets that are more aligned with science-based target setting (especially considering that the original target has been exceeded considerably for each year we have been reporting for the CEMARS/Toitū carbonreduce programme).

The next review of the LTP is in June 2021. According to the original target, the organisation must achieve at least an 8% reduction in emissions (based on emissions intensity per $ M turnover, inflation adjusted). However, for the next reporting period of 2019-20 this target will be reviewed and increased, in order to better reflect current climate science and the organisation's strong commitment to significant emissions reductions.

Table 1 shows specific sub-targets at a more detailed level, by emission source. By achieving each sub-target, the aggregated results will mean we achieve our original target for the total inventory. The current targets were developed in October 2017 and will be reviewed as per the above criteria in time for the next reporting year.

**Table 1: Emission reduction targets**

| Emissions reduction initiative | Target | Baseline ($tCO_2e$) | Target date | Metrics/ KPI | Responsibility | Rationale |
|---|---|---|---|---|---|---|
| Total Scope 1, Scope 2 and Scope 3 (mandatory) emissions | 8% | 1658.00 | 1/06/2021 | $ M turnover | Karen Bennett, Manager of Chief Executive's Office. | Achievable through the application of the reduction projects discussed further below. The $ M turnover metric was selected as it is linked to the capacity of the organisation to engage in different activities. |
| Electricity | 10% | 718.00 | 1/06/2021 | $ M turnover | Mike Garrett (Chief Financial Officer) and Clare Crickett (Director of ICM). | Achievable through operational changes (by optimising time of use of flood pumps, HVAC and lighting systems), and supported by behavioural changes (engagement of staff in energy-efficient practices). |
| Diesel | 8% | 646.00 | 1/06/2021 | $ M turnover | Nicki Hamilton (Fleet Management Coordinator), and personal responsibility of staff using vehicles. Also Clare Crickett (Director of ICM) | Achievable through adjustment of fleet vehicles, fleet management system and staff support for more fuel efficient driving. Also through operational changes and/or investment into flood pump and diesel generator fuel efficiency. |
| Petrol | 5% | 114.00 | 1/06/2021 | FTE staff | Nicki Hamilton (Fleet Management Coordinator), and personal responsibility of staff using vehicles. | Achievable through adjustment of fleet vehicles, fleet management system and staff support for more fuel efficient driving. |
| Air travel (all) | 8% | 127.00 | 1/06/2021 | $ M turnover | Managers of Directorates | Achievable through behavioural changes. |
| Natural Gas | 40% | 47.00 | 1/06/2021 | Absolute | Appropriate Facilities staff | Achievable if natural gas heating sources are switched off when not required (e.g. summer). |

## 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.

**Table 2: Projects to reduce emissions**

| Objective | Actions | Responsibility | Completion date |
|---|---|---|---|
| Reduction of electricity use | Campaign for resource efficiency in offices. | Core Sustainability Team and WRC Communications. | Annual campaign |
| Reduction of vehicle fuel use | Staff engagement campaign in fuel-efficient driving. | Nicki Hamilton (Fleet Management Coordinator) and WRC Communications | Annual campaign |
| Reduction of vehicle fuel use | Transition WRC fleet to lower emissions vehicles. | Nicki Hamilton (Fleet Management Coordinator). | Continued review |
| Reduction of air travel | Review of each air travel request to determine necessity and whether no or lower emissions alternative is possible/reasonable | All staff wishing to travel by air | Embed practice by June 2020 |

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**

| Project details |
|---|
| Data quality projects for currently measured emissions sources have be completed and there is high confidence in the data collected by the organisation.<br><br>We are currently investigating data gathering options for contractor activities and land use changes, so that they can be included in future emissions inventories and reports. |

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 |
|---|---|---|---|
| Air conditioning units | Regular servicing and preventing damage to units | Charmaine Van Niewkerk (Facilities Management Coordinator) | Ongoing |
| Fleet vehicles | Regular servicing and preventing damage to vehicles | Nicki Hamilton (Fleet Management Coordinator) | Ongoing |

## UNINTENDED ENVIRONMENTAL IMPACTS

The projects to reduce emissions (as listed in section 8) have been assessed to identify any impacts on other aspects of the environment. Additional measures, based on guiding principles from our sustainability policy, will be implemented to ensure that any negative impacts are minimised.

| ENVRONMENTAL IMPACTS | Campaign for resource efficiency in offices | Staff engagement in fuel-efficient driving | Transition WRC fleet to lower emissions vehicles | Review air travel requests |
|---|---|---|---|---|
| Resource use | | | | |
| Electricity consumption | | | | |
| 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 |
|---|---|---|---|
| Turnover/revenue ($Millions) | 122.00 | 125.50 | 135.3200 |

**Table 6: GHG emissions per KPI**

| KPI | 2017 | 2018 | 2019 |
|---|---|---|---|
| Total gross GHG emissions per Turnover/revenue ($Millions) | 13.71 | 11.31 | 8.65 |
| Total mandatory GHG emissions per Turnover/revenue ($Millions) | 13.71 | 11.31 | 8.65 |

KPI's are as follows:

| Year | 2017-18 | 2018-19 | 2019-20 |
|---|---|---|---|
| Turnover | $122 million | $125.5 million | $135.3 million |
| FTE staff | 483 | 483 | 540 |
| Total emissions | 1,673 $tCO_2e$ | 1,419 $tCO_2e$ | 1,170 $tCO_2e$ |
| Total emissions per turnover | 13.71 $tCO_2e$ | 11.31 $tCO_2e$ | 8.65 $tCO_2e$ |

## MONITORING AND REPORTING

At an organisation-wide level, the emissions intensity has been calculated using the mandatory KPI of $ turnover as defined in Rule 59b of the technical requirements. Additional KPIs of 'FTE' and 'absolute emissions' are being used to monitor performance in specific reductions projects.

Emissions will be reviewed regularly throughout the year, as will progress towards emissions reduction targets. The EMRP will be reviewed and updated annually in June.

Karen Bennett, Manager of the Chief Executive's Office, is responsible for overseeing overall emissions management and reduction. She is supported by appropriate staff, contractors, and external organisations (including E-Bench and Enviro-Mark).

## EMISSIONS REDUCTION CALCULATIONS

**Table 7: GHG inventory results**

| | 2017 | 2018 | 2019 |
|---|---|---|---|
| Scope 1 | 806.75 | 739.91 | 656.10 |
| Scope 2 | 714.99 | 546.89 | 315.38 |
| Scope 3 Mandatory | 151.21 | 132.65 | 198.98 |
| Scope 3 Additional | 0.00 | 0.00 | 0.00 |
| Scope 3 One time | 0.00 | 0.00 | 0.00 |
| Total gross emissions | 1,672.95 | 1,419.45 | 1,170.47 |

| | 2017 | 2018 | 2019 |
|---|---|---|---|
| Reporting reductions | | | |
| 5-year average ($tCO_2e$) | 1,672.95 | 1,546.20 | 1,420.96 |
| 5-year average ($tCO_2e$) (scope 1 & 2) | 1,521.74 | 1,404.27 | 1,260.01 |
| Emissions intensity reductions | | | |
| Turnover/revenue ($Millions) | 122.00 | 125.50 | 135.32 |
| GDP deflator values Yr1 prices (assumed) | | | |
| Adjusted turnover ($M) | | | |
| Emissions intensity ($tCO_2e$/$M) | 13.71 | 11.31 | 8.65 |
| 5-year average emissions intensity ($tCO_2e$/$M) | 13.71 | 12.51 | 11.22 |
| Percentage change in absolute emissions | (no data) | -15.15 | -17.54 |
| Percentage change in emissions intensity | (no data) | -17.52 | -23.52 |

## PERFORMANCE AGAINST PLAN

The organisation has performed well against the original emissions reduction targets set in the base year (2016-17). Targets of reducing emissions by 2%/year have been vastly exceeded, with $CO_2e$ emissions 30% lower than in the base year. As emissions reductions have been so significant, the original target of 2%/year reductions will be reviewed next year, and new targets will better reflect current climate science, and the organisation's strong commitment to emissions management and reduction.