MERSEYSIDE RECYCLING & WASTE AUTHORITY

MRWA Annual Carbon Emissions Report 2022/23

ZERO WASTE
MERSEYSIDE RECYCLING AND WASTE AUTHORITY

Introduction

Merseyside Recycling and Waste Authority (MRWA) is a statutory Waste Disposal Authority. It provides waste management and treatment services for the Merseyside waste collection councils of Knowsley, Liverpool, Sefton, St Helens, and Wirral. Our services also support the neighbouring Halton council as part of the Liverpool City Region. In 2022/23, we managed 699,883 tonnes of collected household waste and unwanted resources deposited at Household Waste and Recycling Centres. Waste and unwanted resources were generated by 1,551,722 residents from 734,080 households.

To deliver our services, we operate from a central office with shared utilities. We are accountable for staff commuting and other transport impacts associated with our operations. Our responsibilities also extend to Household Waste and Recycling Centres, Waste Transfer Stations, a Rail Transfer Loading Station, an Energy from Waste Facility, and the aftercare of seven Closed Landfill Sites. Household waste management and treatment are contractually delivered by third-party organisations. To ensure that we are a part of the global goal to reduce CO2e emissions, we declared a Climate Emergency in 2019 and produced a Climate Report and Action Plan.

This report addresses the carbon emissions associated with operations and activities in 2022/23. It is evident that society is facing a climate change crisis. Unless we all do something to reduce carbon emissions that cause extreme weather events, they will become unavoidable occurrences in the future. This report is testimony to the hard work of MRWA's teams who are responsible for strategic direction, data, estates management and the assurance that our key service partners deliver on contractual obligations.

Over the last three years we have made good progress against our commitments including completion of a carbon emissions baseline study and the development of a tool to measure our emissions. Across our estate we have assessed opportunities to increase renewable energy generation and reduce our energy usage and to work with nature to minimise and mitigate emissions from our closed landfill sites.

Carbon related activities are based on our operational and contractual controls including

1. MRWA administration activities at One Mann Island
2. MRWA legacy landfill maintenance activities.
3. MRWA staff business travel and commute to work.
4. General public journeys made visiting the Educational Centre and Materials Recovery Facilities open days.
5. Household waste delivery transportation to Waste Transfer Stations and Material Recovery Facilities.
6. Veolia and Suez Household Waste Recycling Centres, Waste Transfer Stations site operational activities and transportation of waste.

The calculation for this period (2022/23) did not include the greenhouse gas emissions associated with:

- Kerbside collection of household waste by the six local waste collection authorities.
- The transportation of domestic and trade waste delivered by the public and tradespeople to the Household Waste Recycling Centres.
- The recycling and thermal treatment of wastes. (Under UK Government guidelines for environmental reporting these emissions belong to the organisations processing the wastes as feedstocks).

MRWA's total carbon footprint in 2022/23 was 40,954 tonnes. Our largest in-direct carbon footprint was identified as Scope 3 – MRWA's In-direct emissions relating to the supply chain and contracts which was 37,476 tonnes. This is emissions from landfill waste, site vehicles and the transfer of waste by rail to Wilton (diesel). Scope 2 emissions are related to electricity consumption at sites (2,817 tonnes) and Scope 1 – 661 tonnes, refers to diesel from landfill flare gas, company vehicles and the use of natural gas in our office.

CO2e emissions

CO2e emissions for 2022/23 are calculated using the Greenhouse Gas (GHG) Protocol. We use the Department of Environment, Food and Rural Affairs (Defra) greenhouse gas reporting conversion factors (2022), which are updated annually. The conversion factors used in this report can be found at https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022.

The operations covered by this footprint include

Scope 1 Direct emissions relating to MRWA.
Scope 2 Indirect emissions relating to MRWA and contracts.
Scope 3 Indirect emissions MRWA supply chain and contracts.

Outside of scope All fuels with biogenic content (diesel, petrol biofuel blend), landfill gas, and thermal treatment.

Findings

We have established that the emissions associated with operational activities were approximately 40,954 tonnes of CO2e (see Chart 1). This is an increase compared with the previous year caused by the landfilling of residual waste during a period of extended maintenance at our Wilton Energy from Waste facility. MRWA is committed to reducing the carbon footprint of all its activities, including from the landfilling of residual waste when our EfW facility is not available. Emissions from our closed landfills reduced over the same period in line with measures to reduce energy demand and the need for gas flaring at these sites.

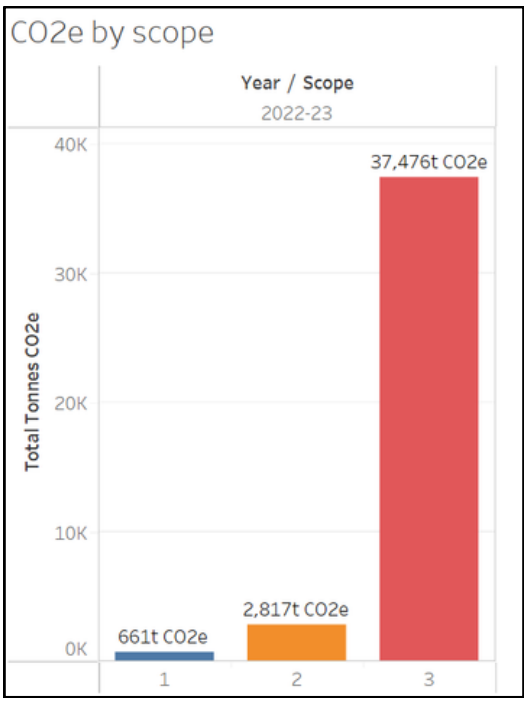

Chart1. Emissions by scope

Next Steps

There are several opportunities to identify and steer our actions in the updated Climate Action Plan, and in supporting the UN SDGs. This data will also influence our work in several areas including a community fund, measuring social value, procurement, education, communications, and operations. Data demonstrates the importance of our behaviour change programme, and we will continue to develop this with the main aim of reducing the amount of residual household waste. The outcomes of implementing a targeted reduction in carbon emissions associated with our activities relate to the opportunities to develop a new skills programme along with green jobs, resource conservation and nature recovery. These opportunities will enable the city region to become a low carbon, zero waste and circular economy location to live and work.

Carbon Reduction Objectives for 2023/24

- Landfill – Continue to seek alternative solutions to avoid landfill during periods of shut-down for maintenance at Wilton.
- Continue to seek opportunities to reduce gas flaring and the use of fossil carbon energy at closed landfill sites.
- Raise awareness of the contribution of waste to global warming through the behavioural change programme
- Continue to measure and report on our carbon emissions annually.