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#### **EXECUTIVE SUMMARY**

This is the fourth MRWA Sustainability Report. As evidence of the impact of climate change on people, planet, and economy grows, we have continued to monitor our performance against our priority SDGs. Our developing zero waste strategic direction is helping us to recognise, align and prioritise opportunities to improve our impact and encourage positive change towards less wasteful behaviours and improved social value. This transition and challenge will continue in the years ahead, and findings from our latest report are summarised below.

- During 2023, we welcomed our first female Chair and female Chief Executive to the Authority.
- Employee training session increased to 570 compared with 186 in 2021/22.
- The MRWA and Veolia Community Fund supported 13 projects that organised 130 community events, 601 training sessions and directly engaged 16,533 people.
- 9,719 people visited the Recycling Discovery Centre (RDC).
- Visits to our Recycle Right website increased by almost 30,000 to 134,318 in 2023/24 compared with 2021/22.
- Social media engagements via Zero Waste LCR increased significantly from 19,067 in 2022/23 to 31,755 in 2023/24.
- We have reduced our office energy consumption but increased our water consumption compared with 2022/23.
- In 2023/24, we treated 709,590 tonnes of household waste, with the average household generating 966 kgs of waste.
- Our Materials Recovery Facilities recycled 74.8% of materials, but recycling bins contained 23.2% of contaminated materials.
- The recycling rate at HWRCs was 66%. The overall household waste recycling rate was 34.1%.
- Carbon emissions reduced by 4,919t CO2e compared with the previous year, giving a total of 36,035t CO2e for 2023-24.
- We reduced the largest source of carbon emissions under our direct control by reducing reliance on continuous gas flaring at closed landfill sites.
- The main source of contract emissions under our reporting was contingency landfilling of waste during EfW facility maintenance and shutdown periods.
- The overall service cost of waste management, treatment and activities was £77,904,858 in 2023/24.

## 1) Introduction

Merseyside Recycling and Waste Authority (MRWA) is the statutory Waste Disposal Authority for Merseyside. MRWA manages and treats waste on behalf of the 6 Districts of the Liverpool City Region, including the Councils of Knowsley, Liverpool, Sefton, St Helens, and Wirral. In a separate arrangement, waste is managed and treated on behalf of Halton Council. The infrastructure required to manage and treat waste includes 14 Household Waste Recycling Centres (plus two in Halton), four Waste Transfer Stations, two Materials Recovery Facilities and a Rail Transfer Loading Station. Residual waste is transferred by rail to an Energy from Waste Facility. The direct management and treatment of waste are contracted services provided by Veolia Merseyside Ltd and MERL (Suez). MRWA is also responsible for the ongoing management, monitoring, and nature recovery at seven Closed Landfill Sites. Closed landfill Sites cover an area of 117 hectares and the area required for waste management and treatment facilities is 30 hectares.

MRWA serves 1.57 million residents that reside in 734,340 households in the Liverpool City Region. In 2023/24, residents generated 709,590 tonnes of household waste. The average household produced almost one tonne of waste (966 kgs) with each resident being responsible for 452 kgs. Since 2020/21, waste generation has reduced by 38,308 tonnes.

The Authority is continuing to develop its zero waste strategic direction and is committed to reducing waste as part of the transition to a low carbon circular economy. Reducing waste means conserving material resources, limiting carbon emissions and tackling climate change. Keeping resources in use and out of the waste stream maximises social value by bringing communities together, enriching lives and creating new job and skills opportunities. Preventing waste can reduce the amount of waste requiring treatment and increase the effectiveness and cost efficiency of waste and resource management. We are continuing to develop this People, Planet, Economy approach to reduce waste and respond to the Climate Emergency. This means supporting residents to reduce the waste they produce, advocating zero waste, proactively reducing carbon from our contract services, operations, and activities, promoting the circular economy, waste prevention, reuse and recycling and maximising social value from unwanted household and personal products.

## 2) Sustainable Development Goals

Our priority UN SDGs remain as set out below

Box 1. Prioritised Sustainable Goals











Achieving responsible consumption and production will ensure the efficient use of resources and the minimisation of waste. This will require increased reuse and recycling of the waste produced and a significant reduction in the quantity of residual waste, including contamination of recycling by non-target materials. Well managed cities and their communities can be hubs of innovation for resource circularity, environmental protection, social benefit, and economic prosperity. This goal is critical for increasing resource efficiency and avoiding waste, reducing carbon emissions, and mitigating climate change, creating social value, and generating green jobs. Our actions to reduce waste and encourage behaviour change form a key part of our climate emergency response alongside reducing our consumption of fossil energy and generating renewable energy where we can.

Quality education is critical for employees and residents so they can be prepared for future changes to waste management, treatment, and activities. We will offer lifelong learning opportunities for our employees and encourage healthy living and lifestyle choices. We will demonstrate care for the physical and mental well-being of our employees. We will maximise the reuse of unwanted resources to support social value in the community and nurture small businesses and community groups to be more resourceful and sustainable, and we will aid nature's recovery across our on our operational estate and closed landfill sites. We will educate and inform stakeholders to reduce carbon emissions by changing their behaviour to produce less waste and less carbon and enable reuse and recycling of products that are no longer wanted.

The UN has identified action is required at global, local and people levels to achieve the SDGs. MRWA's focus is on local and people action, and we continue to gather data to assess our performance against the SDGs. Our 2022/23 report identified potential proxy indicators for our prioritised SDGs. We will keep these under review whilst we also consider new opportunities for measuring and reporting on our progress.

## 3) Progress on SDGs

We continue to use the pillars of sustainability as our drivers and refer to them as People, Planet, and the Economy. People make up society, impact the environment, and propel the economy. Reducing waste can help conserve the planet's valuable

resources and reduce carbon emissions released into our atmosphere. The economy would be best served by being circular, whereby resources are not discarded but returned to the economy to be reused or recycled to protect the extraction of natural resources.

## 4) People and Key Stakeholders

#### 4.1 Governance

MRWA is a public authority and delivers on its duties and responsibilities lawfully, transparently and with integrity in line with its agreed constitution and procedural rules. The Corporate Plan and Mission Statement is reviewed annually and directs service delivery. Our 2023-24 Mission Statement was "To ensure that we reduce the impact of our actions on climate change and improve the sustainable management of waste and resources."

We actively promote sustainable practices with key stakeholders and provide residents with information and awareness of waste prevention, reuse, and recycling, and tackling climate change to achieve a future low carbon circular social economy.

### 4.2 Our people

Figure 1 illustrates the organisational structure of MRWA in 2023/24.

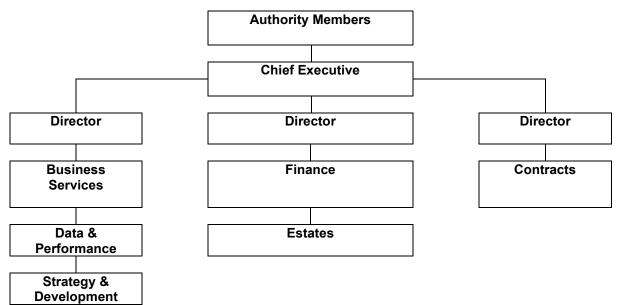


Figure 1. Organisational structure of Merseyside Recycling and Waste Authority

In 2023/24, there were 29 employees at MRWA. Of these, 51.7% were females and 48.3% were male. Females in management positions increased from 44.4% in 2020/21 to 55.6% in 2023/24. During 2023 we welcomed our first female Chair and female Chief Executive to the Authority. Our employees are on the front line of delivering sustainable services that reduce waste, recycle resources, reduce water consumption and energy use, and limit carbon emissions. But they cannot do this without the committed support of MRWA. In 2021/22, 186 training sessions were

completed between employees. This increased to 570 training sessions for employees in 2023/24. To keep employees informed about positive lifestyle choices, 12 Health and Wellbeing internal newsletters were issued.

We added SDG 4 – Quality Education – to our priority goals in recognition that the way we will manage waste in the future will change, and employees will require new knowledge, understanding and experiences of sustainability to maintain their lifelong learning and employability. This is reflected in the significantly increased training sessions provided and completed in recent years.

## 4.3 Other People

We currently work with Veolia and Suez waste management companies to deliver the Waste Management Recycling Contract and the Resource Recovery Contract respectively. Indirectly, we are responsible for the welfare of 281 Veolia employees and 98 Suez employees. In total, we are indirectly responsible for the well-being of 379 other people.

One of the most important aspects of our activities is the offer of support to local groups to participate in waste reduction, reuse activities and community awareness raising through the MRWA and Veolia Community Fund, which has a value of £165,000. In 2023/24, 13 community groups were supported. Together, the groups diverted 467 tonnes of waste from disposal and included the prevention of 345 tonnes of food waste, and the reuse or recycling of 25 tonnes of furniture, 72 tonnes of textiles and 7 tonnes of waste electricals. The 13 projects organised 130 events in their communities and directly engaged with 16,533 people and in-directly engaged with 81,348 people. For the projects to be successful, they are reliant on the goodwill of volunteers. In total, 14,547 volunteer hours of support were provided by local people and the 13 projects delivered 601 training sessions.

#### 4.4 Social Value

By providing funding for community groups and their projects, they received welcome support from the residents in their communities. Opportunities to volunteer are critical to the success of many projects and 13 projects were able to benefit from 14,547 volunteer hours. This had a social value of £151,580 based on the living wage of £10.42 per hour. The environmental costs of the associated carbon emissions would have been almost £3,800 had unwanted resources been disposed of instead of being reused.

## 4.5 Education and circular economy

To change consumer behaviour, it is vital for MRWA to engage with the residents of the city region either directly or indirectly through community groups. As part of the construction of the Gilmoss Materials Recovery Facility, we ensured that an education centre was built so that children and adults could see and experience what happens to the materials they put in their recycling bins. In 2023/24, 9,719 people visited the Recycling Discovery Centre (RDC). In addition, 5,297 people visited the Southport Eco Centre (SEC), which is also supported by MRWA. We worked with

the RDC and the SEC to deliver four and three communications initiatives respectively.

To reduce waste and manage resources efficiency and effectively, community groups, not-for-profit organisations, small and medium enterprises, and businesses need to recognise the benefits and opportunities of creating a region and an economy that is circular. This means keeping resources in use for as long as possible. In 2019, MRWA established the Liverpool City Region Circular Economy Club (LCRCEC) to encourage organisations to move away from the make-use-dispose economic model and improve their bottom line. In 2023/24, there were 136 members of the club, and we organised three events, and issued four newsletters.

#### 4.6 Communications and social media

In 2023/24, there were 124,959 engagements (Impressions) on Facebook and Twitter, a slight reduction on the previous year but still an increase of 66,885 on 2021/22. There were 37,432 engagements with our Recycle Right campaign – 22,310 more than in 2021/22. There was a substantial increase in visits to the Zero Waste Liverpool City Region website, up from 3,729 visits in 2022/23 to 9,372 in 2023/24. Similarly, social media engagements via ZWLCR increased significantly from 19,067 in 2022/23 to 31,755 in 2023/24. Recycle Right website sessions have increased by almost 30,000 to 134,318 in 2023/24 compared with 2021/22. We believe the fall in visits to the MRWA website from 195,072 in 2021/22 to 148,959 in 2023/24 is because of the availability of other, more specific sources of information.

We supported increased awareness of our key messages through 6 'paid for' campaigns, whilst we supported 3 national and 2 local campaigns.

## 4.7 Compliance

In 2023/24, we received 13 Freedom of Information requests and provided enquirers with appropriate answers, compared with four requests in the previous year. This rise may reflect the increased interest and focus on how waste and resources are managed. 36 complaints were received and resolved. In 2009, we gained ISO 14001:2015 accreditation. Four external and 14 internal EMS audits, together with 5 internal Health and Safety audits, were completed to ensure accreditation was maintained. We did not receive any prosecutions or financial penalties.

## 4.8 Policy

Recent policy developments are increasingly focused on decarbonising our use of material resources and moving to a circular economy. An important aspect of our work is to influence these policies and encourage those who can help us to develop more sustainable waste management services for the people of the Liverpool City Region. For example, in 2023/24, MRWA responded to Government proposals on Simpler Recycling, packaging and textiles Extended Producer Responsibility (EPR), and disposable vapes. In reflection of the level of national resources and waste policy activity, there were 312 policy briefings via meetings, documents and emails to staff, Authority Members, council officers and other key stakeholders.

## 5) Planet

Consumerism and waste management are inherently linked through 'product embodied energy'. This means if society continues the linear model of making, using, and disposing of unwanted, valuable resources, we will generate unsustainable levels of carbon emissions and continue to drive climate change. The alternative is to shift towards a circular economy, which keeps products in use for longer, leading to reduced emissions.

A zero waste low carbon economy and positive change towards less wasteful behaviours can help avoid the risks and damage caused by climate change. We need renewable energy generators, more wind and solar, battery storage capabilities, the replacement of fossil carbon vehicle fuels with electric vehicles, clean energy for businesses and homes and most importantly for MRWA, people making different choices about what they buy, what they throw away, and the lifestyle they choose.

#### 5.1 MRWA consumables

MRWA is directly responsible for a range of office-based consumables. However, electricity (46,979 kWh), gas (2,982 kWh) and water (268 m3) consumption are proportioned by floor space within a 13-storey building. Compared with the previous year we have reduced our office energy consumption but increased our water consumption. The Wilton Energy from Waste facility generated 463,403 tonnes of steam and generated sufficient energy to power 54,133 UK homes.

## 5.2 Waste and resource management

There can be an assumption by residents and businesses that their waste has no value. We consider waste to be a valuable resource and aim to maximise its secondary use and worth to communities and people. In 2023/24, we treated 709,590 tonnes of household waste. Residual waste was sent directly to an Energy from Waste Facility. Unwanted household items unsuitable for household bins can, in most cases, be taken to our Household Waste Recycling Centres (HWRCs). The average household generated 966 kgs of waste which equates to 452 kgs per person. The Materials Recovery Facilities recycled 74.8% of materials. However, residents are still confused as to what can be recycled and therefore, recycling bins contained 23.2% of contaminate materials. The recycling rate at HWRCs was 66%. Other waste collected included garden waste – 4,080 tonnes - and food waste - 3,004 tonnes - which were composted. Overall, the recycling rate for household waste that was recycled or composted was 34.1%.

## **5.3 Carbon footprint**

During 2023-24 we continued to develop a Zero Waste Strategy with the goal of working towards zero waste by 2040. Waste is intrinsically linked to carbon emissions and climate change, either through 'embodied product energy' or waste management emissions. Therefore, our strategic efforts aim for both zero waste and a contribution to the wider LCR net zero carbon targets.

Carbon emissions reduced by 4,919t CO2e compared with the previous year, giving a total of 36,035t CO2e for 2023-24. Most of these emissions are linked to our waste management contracts. Emissions under direct control of the Authority are low compared with those related to contracts. The largest source of the Authority's direct emissions was closed landfill sites and emissions were reduced here by reducing reliance on continuous gas flaring through controlled venting and biological methane oxidisation. Controlled venting reduced the electricity demand of the gas flaring system. For the contract emissions, which the Greenhouse Gas Emissions Protocol requires us to report, the main source was contingency landfilling of waste during EfW facility maintenance and shutdown periods.

## 5.4 Biodiversity

Industrialisation and human development have had a drastic effect on the planet's biodiversity. Humans have impacted ecosystems worldwide through habitat destruction, material extraction, climate change, pollution, and the introduction of invasive species in areas not found previously. The loss of habitat is the primary threat to biodiversity in general. A study by the Natural History Museum, claims that nearly half of Britain's biodiversity has been lost since the Industrial Revolution.

MRWA is responsible for 147 hectares of land as either closed landfill sites - 117 hectares - or operational sites - 30 hectares. In 2022/23, five of the seven closed landfill sites had Phase 1 Habitats Survey reports completed. Findings from the surveys can be found in the 2022/23 report. Surveys enable us to highlight and illustrate important observations, such as rare plants, rare animal species, ancient hedgerows, or other types of special features within the habitat. The purpose of the surveys was to record the status of the location, identify ecological constraints and opportunities to protect the ecology and assist nature recovery.

### 6) Economy

The overall service cost of waste management, treatment and activities was £77,904,858 in 2023/24. The cost per household of disposal of residual waste was £116.78, whilst the average cost per tonne to dispose of residual waste was £104.69. In 2023/24, MRWA invested £4,658 in infrastructure.

To support communities to disseminate important messages about resourcefulness and to demonstrate how unwanted resources can be reused and their lives extended and to maximise social value, MRWA (£150,000) and Veolia (15,000) provided £165,000 in the Community Fund. MRWA also provided a £15,000 grant to the Southport Eco Centre to provide waste educational resources. Indirectly, Suez provided funding of £55,000 to communities in Kirkby from the Resource Recovery Contract (Kirkby being the location of the Rail Transfer Loading Station).

## 7) Conclusion

As a strategic waste and resource management authority across the LCR, we have a responsibility to reduce carbon emissions, improve social value and conserve natural

resources. We continue to advocate the reuse of resources to reduce avoidable waste and conserve the 'embedded energy' of unwanted household materials. Our priority goals continued to make progress with respect to People, Planet and the Economy.

We have led on the production of the LCR Zero Waste Strategic Framework, which promotes positive change and a shift away from wasteful behaviours by all. As we move forward along our zero waste strategic direction, we will continue to challenge ourselves to improve outcomes for our people, planet and economy. This will be reflected in how we develop and report on our SDG performance in the years ahead.