

GM Waste and Recycling Committee

Date: 12 October 2022

Subject: Capital Programme and Asset Management Update

Report of: Michael Kelly, Head of Engineering and Asset Management,
GMCA Waste and Resources Team

Purpose of Report

Provide members with an update on the implementation of the asset management plan and key engineering projects.

Recommendations:

Members of the Committee are recommended to:

1. Note and comment on matters set out within the report.

Contact Officers

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Waste and Resources Team

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Equalities Impact, Carbon and Sustainability Assessment:

There are no equalities impacts arising from the matters set out in this report. A fundamental principle of the WRMS and HWRCMS contracts is the sustainable management of waste to reduce carbon emissions from landfill disposal. The carbon impacts of the contracts are monitored and provided annually by the contractor.

Risk Management

Performance of the contracts and associated risks are captured in the GMCA corporate risk register.

Legal Considerations

Activities set out in this report are in accordance with the terms of the WRMS and HWRCMS contracts.

Financial Consequences – Revenue

Activities set out in this report are in accordance with the Waste revenue budget.

Financial Consequences – Capital

Activities set out in this report are in accordance with the Waste capital budget.

Number of attachments to the report:

Appendix A – Capital Programme 2022-23 Q3 Update

Appendix B - Asset Management Plan – 2022-23 Action List Q3 Update

Comments/recommendations from Overview & Scrutiny Committee

N/A

Background Papers

N/A

Tracking/ Process

Does this report relate to a major strategic decision, as set out in the GMCA Constitution

No

Exemption from call in

Are there any aspects in this report which means it should be considered to be exempt from call in by the relevant Scrutiny Committee on the grounds of urgency? N/A

GM Transport Committee

N/A

Overview and Scrutiny Committee

N/A

1. Introduction

This report provides members with updates relating to the Waste and Resources team asset portfolio. Updates are provided for key projects focusing on progress during quarters 1 and 2 of the current annual period 2022-23. Assets within Waste and Resources are managed by the Engineering team and fall into the following three categories:

(A) - Operational Waste Facilities (39 individual assets)
WRMS Contract Facilities - Lot1 28 waste processing and reception facilities across 11 locations.
WRMS Contract – Lot 2 11 Household Waste Recycling Centres
(B) - Buildings and Land
Includes vacant land and building premises
(C) - Closed Landfill Sites
4 Closed landfill sites managed by GMCA 18 Closed landfill sites managed by POS Landcare

2. 2021-22 Quarters 2 and 3 Update

The following information provides individual updates against selected projects across the Waste and Resources Asset categories.

2.1 Category (A) Updates – Operational Waste Facilities

1. Longley Lane Mechanical Treatment and Reception (MTR) Facility

Background

In 2016-17 GMCA commenced a review to modify all four of our Mechanical-Biological-Treatment (MBT) facilities. The key principals of the project were to simplify the technologies by removing the biological element of treatment, reducing operational costs, reducing maintenance requirements and increasing throughput efficiencies at each facility.

Modifications at Bredbury, Cobden Street and Reliance Street were successfully delivered in the past three years creating more simplified Mechanical Treatment and Reception (MTR) Facilities. Each plant was adapted to receive residual waste for shredding and compaction.

Our final project at Longley Lane is to provide a new simplified MTR arrangement like the previous three plants. The new layout is designed to simplify conveyor routes and create a more accessible plant for operation and maintenance. The existing shredder and compactors have been retained, serviced and modified as part of the upgrades. All existing conveyors, plant and equipment including a screening trommel have been removed and replaced by new conveyors along with an over-band magnet to remove a proportion of ferrous metals from the waste stream.

The new plant at Longley Lane was completed, tested, and commissioned in July this year and is now part of our four MTR's covering all key regions of the Contract to receive, handle and process residual waste.

The completion of Longley Lane concludes a four-year undertaking to improve the Authorities processing facilities with all four facilities now having a combined capacity of more 480,000 tonnes to receive residual waste.

2. Reliance Street Household Waste Recycling Centre (HWRC)

Background

A modified HWRC is required at Reliance Street in North Manchester due to the existing facility being beyond its economic life span and its restricted layout which does not encourage high levels of recycling of separate commodities from within the household waste stream. The existing HWRC layout is restricted by size and the over the wall reception area for bulk materials for recycling and residual waste can result in cross contamination of the waste streams.

A new improved centre will provide a larger facility by extending the current footprint to include the redundant Anaerobic Digestion (AD) plant area. This will provide more capacity to receive and manage recycling commodities by providing 16 individual

containers to segregate commodities, similar to the design of many of our existing HWRC's across the region.

During the past 12 months GMCA have defined an outline design that captures all our operational demands which are all detailed within our pre-planning application with Manchester City Council (MCC). Further to the pre-planning engagement we also engaged locally with residents to share our plans and gain feedback for consideration before submission of the planning application.

We expect to have submitted the planning application by the time this Committee meets in October. We also intend to commence demolition of the redundant AD tanks and a wider clearance of other redundant items of plant by the end of March 2023. This work will make way for the proposed development which we expect to commence in summer 2023 subject to planning approval.

3. Redundant Assets (2022 - 25)

Now that we have concluded our MTR upgrades with the delivery of Longley Lane, we are looking to focus on other longer-term projects. One significant area is to review redundant assets across the portfolio, as many of our former process activities such as AD have been off-line for some time and are not required for the future.

There are potentially 30 individual assets / functions that will need to be reviewed for repurposing, removal and or replacement. It is now our intention to review and implement the changes needed over the next 3 years taking us up to 2025.

Our first significant asset removal project is currently under way at Bredbury to remove the redundant In-Vessel Composter (IVC) equipment. This will allow us to free up valuable space within the current building which will be re-purposed by Suez. Alongside this we also expect to be on site at Reliance Street in the coming months to demolish the redundant AD tanks, making way for our proposed new HWRC.

Further updates on our intentions will be provided at future committee meetings, please refer to Appendix A for an indication of forecasted projects up to 2024 – 25.

4. Decarbonisation

Alongside our redundant assets review we are also considering decarbonisation of the waste portfolio. We are looking to undertake an initial review to identify where carbon can be reduced across the sites.

The review will initially focus on three key areas to gain an understanding of what is feasible for our buildings and waste processes:

- Review and collate our current carbon emissions data;
- Consider Solar Photovoltaic Opportunities – Roof and Ground mounted; and
- Consider all other decarbonisation opportunities.

We expect to have concluded the initial review by the end of this year, which we hope will lead to further specific actions in 2023 – 24 and beyond. Further updates on decarbonisation projects will be provided at future Committee meetings.

2.2 Category (B) Updates - Buildings and Land

No significant works or capital projects are ongoing or planned at category B locations. Please refer to Appendix B – 2022-23 Asset Management Plan update for further information.

2.3 Category (C) Updates - Closed Landfill Sites

GMCA currently manage four closed landfill sites at Bredbury, Waithlands, Barlow Hall and Cringle Road. Two sites at Barlow Hall and Cringle Road are jointly managed with Manchester City Council (MCC) and are due to be fully returned to MCC control by 31st March 23.

1. Bredbury – Drainage Works Background

Bredbury closed landfill is located approximately 1km North of Bredbury Town Centre adjacent to Bredbury Business Park, it comprises of two 4-hectare sites separated by a railway line serving the Mechanical Treatment and Reception (MTR) facility.

Leachate levels within the site are managed by a drainage system designed to capture percolated ground water and transferred to an on-site Methane Stripping Plant (MSP). The MSP treats leachate to reduce Methane concentration prior to disposing of the treated effluent into the local public sewer. The site also contains over ninety gas monitoring boreholes where gas data is obtained for environmental monitoring purposes.

Parts of the existing drainage system are damaged and beyond any reasonable condition due to age and deterioration over the systems lifespan. GMCA now intend to undertake upgrades to the system which will provide the following key outputs:

- Replace damaged pipe section (approximately 50m);
- Upgrade existing manholes to improve access and egress;
- Undertake any other repairs required;
- Improve maintenance access;
- Ensure continued leachate collection to manage landfill water table; and
- Modernise chambers to comply with the latest health and safety standards.

2. Update 2022-23 – Q3

Following a public procurement exercise in July this year, we have now appointed a contractor to undertake this work based on a defined design and specification, with commencement scheduled by the end of September and conclusion scheduled by the end of December. Further updates will be provided upon completion.

3. 2022-23 - Capital Programme

2022-23 Capital Programme updates are provided within Appendix A.

4. 2022-23 - Asset Management Plan

2022-23 Asset Management Plan (AMP) updates are provided within Appendix B.