

# GM Waste and Recycling Committee

Date: 12 October 2022

Subject: Sustainable Consumption and Production Update: Textiles

Report of: Sarah Mellor, Head of Sustainable Consumption and Production, GMCA  
Waste and Resources Team

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## Purpose of Report

The purpose of the report is to update Members on the textiles work programme which will be undertaken by the recently established Textiles and Fashion Industry Challenge Working Group.

## Recommendations:

Members of the Committee are recommended to:

1. Note and endorse the proposed work programme for textiles, which crosscuts a number of themes; Priority 1: Moving towards a Circular Economy, Priority 2: Managing Waste and Priority 4: Sustainable Lifestyles.

## Contact Officers

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## Equalities Impact, Carbon and Sustainability Assessment:

Impacts Questionnaire		
Impact Indicator	Result	Justification/Mitigation
Equality and Inclusion	G	The Plan looks to raise awareness through community engagement and involvement
Health		
Resilience and Adaptation		
Housing		
Economy	G	Moving to a circular economy can have a positive social, economic and environmental effect on the conurbation By creating a circular economy it should identify gaps and skills and stimulate economic growth in those areas Innovation is key to developing solutions and end markets for difficult materials Inward investment could potentially through innovation
Mobility and Connectivity		
Carbon, Nature and Environment	G	The SCP Plan looks to reduce carbon emission through its 4 key priority areas
Consumption and Production	G	The SCP Plan focuses on key priority areas, as set out in the report, to reduce the level of waste produced A number of projects are currently in place to look at minimising construction waste Managing waste sustainability as possible is a key priority within the plan Moving to a circular economy is a priority with the SCP Plan PlasticFreeGM continues to be a priority within the SCP work programme
Contribution to achieving the GM Carbon Neutral 2038 target		The SCP Plan and work programme are a critical element to the delivery on GM achieving Carbon Neutral by 2038. As SCP covers a wide range of areas, ensuring that the work programme is sufficiently resourced would improve the contribution to delivery of the overall plan.
Further Assessment(s):	N/A	
	<div style="display: flex; justify-content: space-between;"> <div style="width: 25%; background-color: #2e8b57; color: white; padding: 5px;">Positive impacts overall, whether long or short term.</div> <div style="width: 25%; background-color: #ffc107; color: black; padding: 5px;">Mix of positive and negative impacts. Trade-offs to consider.</div> <div style="width: 25%; background-color: #dc3545; color: white; padding: 5px;">Mostly negative, with at least one positive aspect. Trade-offs to consider.</div> <div style="width: 25%; background-color: #6c757d; color: white; padding: 5px;">Negative impacts overall.</div> </div>	

## Risk Management

All risks regarding the delivery of the 5YEP and SCP theme are set out in the GM Environment Team's Risk Register. There is nothing identified within the SCP section of the register which is currently identified as 'red' status.

## Legal Considerations

There are no legal implication of the recommendations set out within the report.

## Financial Consequences – Revenue

Budget forecast for expenditure to progress this work stream has been identified however it is acknowledged that for certain areas to progress additional funds maybe be required. If so, these would be subject to a separate detailed business case being approved.

## **Financial Consequences – Capital**

There are no capital consequences within the report. Actions for future years may require additional funds. If so, these would be subject to a separate detailed business case being approved.

**Number of attachments to the report: 0:**

## **Background Papers**

The Greater Manchester 5 Year Environment Plan

SCP Plan

## **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

# 1. Introduction/Background

The SCP Theme of the GM 5 Year Environment Plan focuses on valuing resources and reducing waste. It also supports our carbon neutral ambitions by identifying actions which will reduce our Scope 3 emissions. The SCP plan has now been approved and published. It covers 4 key priority areas:

- Moving to a Circular Economy;
- Managing Waste Sustainably;
- Reducing Food Waste; and
- Moving to Sustainable Lifestyles.

## 2. The SCP Work Programme

The SCP Plan will be delivered by a Challenge Group of public, private, third sector and academic partners, formed under the GM Mission Based Approach, reporting in to GMCA via the Green City Region Partnership. Work has already commenced on identifying key activities to start the delivery of the Plan, which is set out below:

Priority 1: Moving to a Circular Economy (CE)	Priority 2: Managing Waste as sustainably as possible	Priority 3: Reducing Food Waste	Priority 4: Sustainable Lifestyles (SL)
<ul style="list-style-type: none"><li>•Reduces - Driving Policy Development</li><li>•Roadmap to CE: Textiles - including new Business to Business Platform</li><li>•Sustainable Procurement Strategy</li></ul>	<ul style="list-style-type: none"><li>•England's Resource &amp; Waste Strategy</li><li>•GM's Zero Waste Strategy</li><li>•Business Waste - maximising local levers</li><li>•Transform: 3D Printing in Plastics</li><li>•One Bin to Rule them all - Plastics Recycling</li></ul>	<ul style="list-style-type: none"><li>•Food Procurement Strategy</li><li>• Feasibility of GM Food Distribution Tool to maximise reach and reduce food waste</li><li>• Delivery model for GM Sustainable Food City Region</li></ul>	<ul style="list-style-type: none"><li>•Behaviour Insight research with TFGM</li><li>•Production and delivery of Sustainable Lifestyles Communications Plan</li><li>•Green Summit</li><li>•Listening Event with Schools</li><li>•Development of Internal Climate Change e-learning module</li></ul>

At the last meeting, the Committee requested further details of work being planned to deliver the plan in order to explore the opportunities available within a particular area. This report focuses on the area of Textiles. The first Challenge Group has yet to meet however, below sets out an overview of the proposed work programme including priority areas for action, monitoring progress and the benefits to Greater Manchester.

### **3. Why focus on Textiles?**

#### **3.1 Impact on Climate Change**

Globally the fashion and apparel industry continues to rapidly grow, with an estimated turnover of around € 150 trillion and throughout its entire supply chain employs around 60 million people. However, the existing linear business model of 'take, make, consume and dispose' is no longer sustainable with the significant over consumption of natural resources. The impact of the industry's current ethos of expanding demand, lower costs and increased speed of production, causes significant environmental impacts. In 2020, textile consumption in Europe had the fourth highest impact on the environment and climate change from a global lifestyle perspective. The industry was the third highest, in the area of consumption, on water and land use and greenhouse gas (GHG) emissions; estimates suggest that around 1.2 billion tonnes of CO<sub>2</sub> equivalent are released by the sector each year.

The Ellen MacArthur Foundation believe that if interventions are not made now, based on current forecasts, the fashion sector could be responsible for more than 26% of the global carbon budget associated with a 2 degree global temperature rise pathway by 2050. However, no more than a 1.5 degree increase is essential for avoidance of serious climate change affects.

Additionally, research also suggests that up to 80% of the climate change impact of clothing is linked to its production, therefore there is significant opportunities to reduce carbon, GHG emissions and other environmental impacts such as land and water pollution.

#### **3.2 Legislation Driver**

Within England's Resources and Waste Strategy (2018) Government stated that:

*'By the end of 2025 we will have reviewed and consulted on measures such as Extended Producer Responsibility and product standards for five new waste streams, two of which we plan to complete by 2022'*

Textiles, including at least all clothing, as well as other household and commercial textiles such as bed linens was identified as one of the five material streams that would

be considered. It wasn't until March 2021 that Government announced its commitment to carry out this consultation, however, to date, that consultation has not been published. Once it is published, we will be working with stakeholders, including the Waste and Resources Team and Districts, to submit our response.

### 3.3 Current Situation of Textile Waste

#### 1. UK

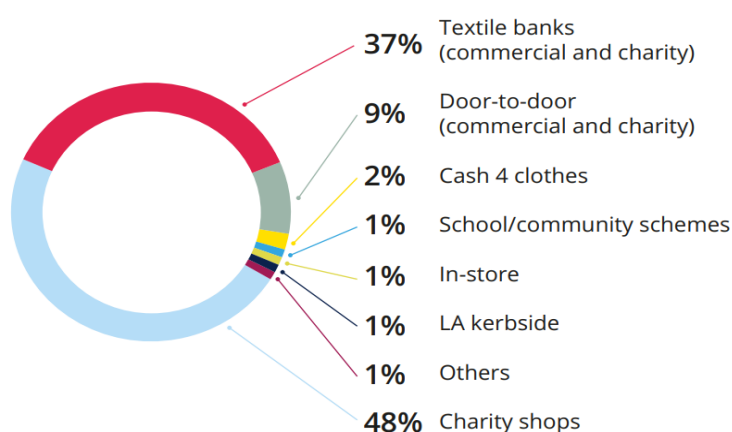
##### Textiles in residual waste

According to WRAP's Textiles Market Situation report 2019, 920,000 tonnes of used textiles ended up in the household residual waste in 2017, this is around 5% of all kerbside residual waste. This costs councils between £51 million collectively for those which send waste to energy recovery plants, and up to £67 million for those who landfill. In 2019/20 118 local authorities (about one third) in the UK collected textiles at the kerbside.

##### Recycling and reuse of textiles

WRAP's Textiles Market Situation report 2019, states that 620,000 tonnes of used textiles were collected for reuse and recycling in 2018. Of this, charities are the largest collector at 48%, followed by textile banks at 37%.

Figure 1: UK used textiles collected for reuse and recycling by supply chain stream



Additionally, research undertaken by Zero Scotland showed that despite textiles only being 4% of household waste, textiles accounted for 32% of all Scotland's carbon impacts. The same report compared the impact of animal and mixed food waste, which was the 2nd biggest carbon contributor at 30%, however the weight of that waste stream

accounts to 18% of all waste, inferring that throwing textiles into the bin has nearly 5 times the carbon impact of binning the same quantity of animal and mixed food waste.

## 2. Greater Manchester

### Household waste kerbside collections

Textiles are not currently collected at the kerbside in any of the 10 Greater Manchester local authorities (Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford and Wigan). However, they are readily accepted at bring banks, charity shops or local Household Waste Recycling Centres (HWRCs).

### Waste compositional analysis results 2018/19 – GMCA household kerbside collected waste (excludes Wigan)

On average, 5.4% or 12.7 kilogrammes (kg) per household (hh) each year (yr) of residual waste consisted of different types of textiles. Over 83% of the weight of items in this category were classified as linen, clothing and shoes. These items account for 4.5% or 10.6kg/hh/yr of residual waste. This equates to 10,780 tonnes a year (based on 1,017,000 GM households).

Table 1: Textile content of household kerbside residual waste

Item	Bolton	Bury	Manchester	Oldham	Rochdale	Salford	Stockport	Tameside	Trafford	GM Average
Total textiles %	5.1	6.6	4.9	5.9	6.4	5.6	5.3	5.4	4.3	5.4
Total textiles kg/hh/yr	12.2	14.9	10.7	14.9	13.0	16.6	11.8	12.8	8.7	12.7
Linen, clothing and shoes %	4.4	5.6	4.2	4.6	5.2	4.7	4.5	4.4	3.7	4.5
Linen, clothing and shoes kg/hh/yr	10.5	12.7	9.2	11.6	10.5	13.7	10.0	10.3	7.5	10.6
% of textiles from linen clothing and shoes	86.1	85.1	86.1	77.6	80.9	82.5	84.9	80.4	85.8	83.3

### Household Waste Recycling Centres (HWRCs)

Textiles are currently collected at all GMCA's 20 HWRCs and a further 2 waste and recycling centres in Wigan. Textiles accepted at GMCA's facilities are clothing, paired shoes, handbags, hats, belts and household textiles (such as duvet covers, pillowcases, blankets, bedsheets, towels and lightweight curtains).

Image 1: Textile containers at Cemetery Road HWRC



GMCA's facilities are managed by Suez UK Recovery and Recycling who have a contract with SWD for processing. SWD is a Greater Manchester based specialist in the collection, reuse and recycling of preloved textiles. They belong to Textile Recycling International, who are the holding company for four of the UK's leading textile recyclers:

1. JMP Wilcox;
2. Nathon's Wastesavers;
3. Cookstown textile recyclers; and
4. SWD

Together they collect approximately 80% of the textiles from the UK Market. SWD follows the waste hierarchy and prioritises reuse over recycling.

Approximately 2,000 tonnes of textiles per year are collected by SWD from HWRCs in Greater Manchester. SWD grade textiles into different clothing garments e.g. jeans. Once graded into jeans, they grade into women, men, children and jeans which are not fit for purpose. Bales of textiles are then currently sold to West and East Africa.

The waste composition analysis 2018/19 showed that approximately 12,000 tonnes per year of the total amount of residual waste collected at HWRCs was textiles. Most of the textile waste was found in bagged household waste disposed of in the residual waste containers at the HWRCs.



## **4. Textiles Workstream**

### **4.1 Textiles Working Group**

The textiles work programme will be undertaken by the recently established Textiles and Fashion Industry Challenge Working Group. The group will operate under the existing Sustainable, Consumption and Production Mission Based governance structure. It will meet 3 to 4 times per year and be co-chaired by the GMCA and The Manchester Metropolitan University (MMU). Where required, separate task and finish groups will be established, and additional support will be sought, for example from Local Authorities and external consultants.

This Group consists of stakeholders from the Greater Manchester and Northwest region covering all areas within the industry, including manufacturing, retailers, reprocessing and waste management sectors.

Whilst we recognise that legislative change is needed at national level to affect change at scale, the Working Group will explore and drive the actions as set out in the work programme below to establish circular solutions for the region's textile waste problem and help to create positive change.

As the group has not yet met, a priority moving forward will be to define a clear set of outcomes, timelines, and key performance indicators (KPIs) to monitor progress on a project-by-project basis. An annual report on KPI progress will be reported to the Waste Committee in advance of setting the second years' work programme.

## 4.2 Textiles Work Programme

	<b>Project</b>	<b>SCP Priority</b>	<b>Overview/Action required</b>	<b>GM Benefit</b>	<b>Timeframe</b>
1.	Develop and launch a circular economy roadmap for textiles	Moving to a Circular Economy	<p>A roadmap will be developed focusing on both product design and finding sustainable solutions for surplus stock and dead stock. It will explore opportunities to maximise textile circular economy business models such as:</p> <ul style="list-style-type: none"> <li>- More use per user: designed to enable the user to wear the product more;</li> <li>- More users per product; reuse/resale of clothes; and</li> <li>- Beyond physical products: digital garments i.e. for use on social media; and enabling people to try on clothing before purchasing.</li> </ul>	<p>This preliminary work will identify a working model for sustainable textiles and fashion in Greater Manchester. Informing specific actions to address Waste Hierarchy priorities and reduce the amount of textile waste entering the waste stream in Greater Manchester.</p>	Year 2 (2023/2024)

2.	Undertake a textile material flow mapping exercise	Moving to a Circular Economy	<p>Undertake a mapping exercise to identify:</p> <ul style="list-style-type: none"> <li>- flows of textiles in and out of the city region and quantify them;</li> <li>- stakeholders and their current roles;</li> <li>- where there may be barriers or losses in the system; and</li> <li>- where intervention may be required to overcome these or to create new opportunities as they are identified.</li> </ul>	<p>This is an essential step to enable the right priorities and circular solutions for the region's textile waste problem and to monitor its success. Currently no data is available on flows of textiles in and out of the city region.</p>	Year 1 (2022/2023)
3.	Explore the development of sustainable end markets, and feasibility of mechanical and chemical recycling.	Managing Waste Sustainably	Feeding into action 1, the feasibility of developing sustainable end markets for textiles which are currently not readily recyclable will be explored. In addition, research will be undertaken into both mechanical and chemical	Create opportunities to create new value streams in Greater Manchester (e.g., recycled wool products, bedding or other potential products derived from mechanical	Year 1 - 4 (2022/2026)

			recycling technology to assess opportunities to create new value streams.	or chemical recycling processes)	
4.	Undertake a Textile Waste Compositional Analysis	Managing Waste Sustainably	To give a full understanding of the types and quantities of textile materials that are still being disposed of in the household residual bin, it is proposed that a waste-composition analysis is undertaken working in partnership with Greater Manchester Districts and an external provider. Results will be analysed and compared to compositional analysis undertaken in 2018/19	Instigate initial system trials that centre around Greater Manchester to evaluate the potential to source post-consumer textiles collected and sorted in the city-region and maximise the true potential of reuse and recycling and the selling of products made from worn out textiles back into the sector (e.g., recycled wool products, bedding or other potential products derived from mechanical or chemical recycling processes)	Year 1 (2022/2023)

5.	Evaluate initiatives in other cities and regions	Moving to a Circular Economy and Managing Waste Sustainably	Circular and recycling initiatives that are taking place in other cities and regions will be evaluated, and where possible a collaborative approach to learn from those initiatives will be taken. This includes initiatives such as the Circular Economy Business Hub and Used Textile Refinement Plant in Turku, Finland which is developing a plant, using semi-automated process to sort post-consumer textiles into separate re-use and recycling grades. The recycling grades are then mechanically recycled to make thread, various non-woven fabrics, insulation materials, acoustics boards, filter fabrics and composites.	Take on board potential learnings (e.g., Turku (Finland) for replication in Greater Manchester if appropriate to increase reuse, recycling and waste prevention.	Year 1 (2022/2023)
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6.	Evaluate the potential of the automated sorting technologies that are currently available and monitor new developments.	Managing Waste Sustainably	The feasibility of automated sorting technologies for material reuse and recycling options will be evaluated, as currently, sorting processes are still undertaken manually, which is both expensive and extremely labour intensive.	Consideration to be made as to whether investment in automated equipment would help to serve the ambitions of Greater Manchester in the medium and long term.	Year 1- 2 (2022/2024)
7.	Develop a communications strategy and delivery plan	Sustainable Lifestyles	A communications strategy and delivery plan will be developed, to both promote the work being undertaken by the Working Group and support behaviour change campaigns, such as kerbside collections and other initiatives, to increase reuse and recycling.	Promotion of extending the lifecycle of garments/textiles as well as reuse and recycling will: <ul style="list-style-type: none"> <li>- reduce consumption of textiles;</li> <li>- keep textile waste out of the waste stream;</li> <li>and</li> </ul>	Year 1 (2022/2023)

				- and increase re-use and recycling of textiles.	
8.	Pilot prevention, re-use and recycling initiatives.	Managing Waste Sustainably and Sustainable Lifestyles	The Working Group will be looking to partner with and support Districts to pilot initiatives under the waste hierarchy, that encourage prevention of waste in the first place and re-use and recycling of textile materials.	In addition benefits given above (Communication Strategy), there are direct benefits to the community to encourage further re-sale, re-use, repair and other recovery options of clothing and textile items.	Year 1 – 4 (2022 - 2026)

## **5. Recommendations**

The Committee is requested to note and endorse the proposed work programme for Textiles, which crosscuts a number of themes; Priority 1: Moving towards a Circular Economy, Priority 2: Managing Waste and Priority 4: Sustainable Lifestyles.