

MERSEYSIDE RECYCLING & WASTE AUTHORITY

DRAFT 2015

RE-USE STRATEGY 2015



Executive Summary

Following a prolonged and deep recession, the green shoots of economic recovery are beginning to appear in Merseyside and Halton but at the same time, waste arisings are starting to increase as well. This Re-use Strategy is timely in putting Merseyside Recycling and Waste Authority (MRWA) at the forefront of influencing people to change their behaviour in respect of what they buy whether new or second hand, how they use their purchases and what they discard ultimately as waste. Re-use of products is important because it helps protects finite resources, sustains a better quality of life and encourages a more productive economy.

Re-use is a key objective of the adopted Joint Recycling and Waste Management Strategy. MRWA already supports re-use through the Community Fund, Waste Prevention Campaign and the Waste Management and Recycling Contract (WMRC). The Authority also seeks other opportunities to increase reuse e.g. through support to social enterprises and not for profit organisations, developing re-use shops at Household Waste and Recycling Centres (HWRCs) and encouraging residents to be 'smarter' when buying and increasing their awareness of re-use via the internet and social media.

To incentivise and support the third sector, it is important that the Authority reviews its recycling credits system to explore the feasibility of awarding discretionary re-use credit payments. Reuse credits should increase the collection of household furniture, electrical appliances and other household items for re-use whilst supporting social values.

The Authority also needs to establish 'where it is now' with regards to what is being reused across the region. Developing a baseline for re-use will enable progress to measured and monitor impacts, develop targets and identify new opportunities.

The Authority encourages and supports increased employment, skills/training and volunteering opportunities. Through re-use activities, it can help stimulate socially conscious markets, contribute to improvements in health and wellbeing, mitigate climate change and reduce other environmental impacts. This can be done whilst obtaining value for money and by discouraging a linear economic approach of *'making, using and disposing'* of products. These actions help to keep resources in use for longer, offer householders' opportunities to make financial savings and helps local businesses to be more competitive and innovative.

All these activities contribute to the development of a circular economy. MRWA is in a prime position to help develop with partners and move towards a holistic Resource Management Strategy for the City Region. This Strategy would have the potential to significantly reduce the cost of waste management, enhance

environmental performance, nurture social cohesion and improve the bottom line of businesses.

The Strategy recommends that the Authority should focus its priorities and resources in the following areas to promote re-use in the City Region:

	Recommendations
•	Establish re-use shops at Household Waste Recycling Centres (HWRCs)
•	Develop re-use, repair and up-cycling activities and support skills/training and volunteering opportunities in the third sector and in the community to influence behavioural change
•	Support the development of a business waste resource efficiency programme
٠	Develop an on-line re-use Resource Exchange (MerseyBay)
•	Review recycling credit scheme and explore awarding discretionary re- use credit payments
•	Increase communications through social media and the development of the Re-use for Merseyside and Halton website
•	Engage with registered social landlords and residents and encourage re- use of household goods
•	Increase textiles re-use by growing capacity in order to develop and resource projects
•	Investigate how to increase re-use of Trade Waste at HWRCs

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1. Introduction

Following a prolonged and deep recession, the current, slow but evident upturn in the economy is already putting pressure on waste arisings with associated financial costs to the Authority and Merseyside residents. As residents and businesses start to buy more goods they are not considering the benefits of re-use or repair as an alternative to buying new.

The Waste Prevention Programme for England published by DEFRA in 2013, estimates that householders can save over a billion pounds a year through greater reuse of products such as household appliances and furniture. Re-use can be accomplished in many ways:

- buying and selling in the used marketplace e.g. car-boot sales, jumble sales;
- borrowing, renting and leasing;
- subscribing to waste exchange services;
- online selling/bartering or free services such as Ebay, Freecycle and Pre-loved;
- making or receiving charitable donations of goods;
- Product design, upgrades and durability, maintenance and repair and;
- Increased public awareness of the value of the things that are thrown away.

The Authority's objectives are to work with customers and contractors to improve performance and to maximise joint working with stakeholders through effective communication, consultation and engagement. The main aim of the adopted Joint Recycling and Waste Management Strategy (JRWMS) has been to move waste management activities up the waste hierarchy and to prepare for re-use.

Re-use is defined as;

Any operation by which products or components that are not waste are used again for the same purpose for which they were conceived (EU Waste Framework Directive, 2008).

Also under the remit of re-use is repair and upcycling.

Repair:

This can give longer life to products in the home and in business and enables lifestyle skills such as sewing to be re-learnt. In the current disposable society, consumers may find it easier and cheaper to replace or upgrade an item than have it repaired but there is an increasing demand for repair services and products that are durable.

Up-cycling:

Upcycling is a process in which items such as furniture are repaired and redesigned to give them longer life as a product someone is willing to buy or made available to families on a low income.

This Strategy seeks to maximise the opportunities for people and businesses to re-use or repair the goods they buy as a viable option to throwing valuable resources in the bin. Unwanted goods can be exchanged or passed on to be re-used, repaired or upcycled; this can be supported and delivered through social enterprises, community organisations and charities that can develop initiatives and nurture social values. By focusing on resource re-use and efficiency, we can increase skills and new business opportunities and ultimately, deliver more with less.

2. The Waste Hierarchy

The Waste Hierarchy ranks waste management options according to the best environmental outcome taking into consideration the lifecycle of the material. The Waste Hierarchy gives priority to preventing waste and preparing for re-use above recycling, other recovery including energy and the least preferred option of disposal to landfill (See Fig 1.).



3. Why Re-use?

Re-use plays a key part in enabling society to manage often limited and rare natural resources. The JRWMS supports the environmental, economic and social benefits of re-use which:

- Reduce over-consumption of natural resources e.g. oil, timber, ores and rare earth metals;
- Avoid reliance on scarce natural resources and increased costs of secondary raw materials;
- Safeguard natural eco-systems and wildlife habitats;
- Reduce carbon emissions from extraction of non-renewable resources to the manufacturing and transportation of goods;
- Create less air and water pollution than making a new item or recycling;
- Keep goods and materials out of the waste stream and final disposal to landfill for a longer period;
- Offer business financial savings in purchasing and waste treatment/disposal costs;
- Offer household financial savings in purchasing goods and reducing waste;
- Opportunities for training, upskilling and reviving repair and re-use industries;
- Generate new business and employment opportunities particularly in the strong community and social enterprise sectors and;
- Support the increasing re-use trade from online exchange, selling or trade back schemes to car boot sales and community swap days.
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4. Drivers of Re-use

European and national waste management policy such as the Landfill Directive 1999, Waste Framework Directive 2008 and the Waste (England and Wales) Regulations 2012 will continue to be the primary drivers of change within the waste management sector in the UK (See Appendix 1 for more details).

Resources play a central role in providing buildings, energy, food and household products but demand continues to outstrip supply for many natural resources. Society is slowly learning that we cannot continue to produce goods, use them and throw away. Recycling can only go so far and we need to be more resource efficient as a City Region. The City Region's priority of a Low Carbon Economy (through the Local Enterprise Partnership) will support the delivery of re-use and resource efficiency objectives in this Strategy.

The concept of a circular economy is gaining momentum and is a practical framework to support the delivery of re-use and resource efficiency objectives. Instead of resources being made, used and thrown away, they would be kept in the economy for as long as possible.

WRAP defines a circular economy as follows:

"An alternative to a traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life."

Benefits and opportunities associated with adopting a circular economy range from financial savings associated with using resources more efficiently, labour opportunities arising through re-use, remanufacture and refurbishment of goods and environmental benefits resulting from a reduction in landfill and climatic emissions.

Traditionally, the third sector and community groups have provided services to deliver re-use e.g. Bulky Bob's mainly in the area of social welfare, education and awareness. However, there can be a perception about whether such organisations can deliver on a scale that is sustainable and value for money. The Authority can, through the Public Services (Social Value) Act 2012 promote and advocate training, employment and volunteering opportunities and stimulate socially conscious markets and at the same time, reduce resource use, reduce costs and contribute to a circular economy.

The Social Value Act recognises that partnership working with the third sector could dramatically improve the cost-effectiveness of a service in financial as well as social terms. Section 5 highlights how MRWA has actively developed partnership working to deliver social value.

5. Current re-use activities by MRWA

The Authority encourages and supports activities whereby household items are redirected away from landfill and re-used in a number of ways; e.g. HWRC franchise operatives recover items and sell onto other parties. It is estimated that approximately 20 per cent of the Waste Electronic and Electrical Equipment (WEEE) deposited at HWRCs is re-used as are textiles, paint and bicycles. The Authority has also funded a range of successful re-use schemes through the Community Fund. In 2013-14, almost 3,000 tonnes of unwanted household items were re-used. As a result, 2,300 tonnes of carbon dioxide emissions avoided. (See Table 2).

MRWA and Re-use at HWRCs and in the Community	2013/14			
		avoided		
	Landfill	CO2-e		
A number of Franchisees operate under licence from the HWRC contractor. They intercept household items (Bric-a-brac) that is destined for landfill and sell them to the general public and other outlets.	1,395	1,504		
Facilities are available at HWRCs for residents to deposit WEEE. It is assumed that approximately 20% is re-used.	863	706		
Re-paint schemes involve intercepting unwanted paint from being deposited at HWRCs and sent to landfill. Collected paint is given to community groups and other third sector organisations and to people in need.	22	75		
The bicycle scheme collects donated bicycles (at HWRCs) and passes them onto people in need. Bicycles that are damaged are refurbished before being passed on to others.	2	5.4		
Sub-total	2,282	1,580		
MRWA Community Fund and Waste Prevention Programme				
The Merseyside Textile Forum was established in 2012 to enable charities and social enterprises develop projects to reduce the 21,000 tonnes of textiles being sent to landfill on Merseyside and increase donations of good quality clothing to local charity shops. Projects included textile banks located at the Universities for use by students.	3	5.5		
The Authority has supported a number of community or not for profit organisations through its Community Fund. Projects including:				
 Fair Share: 483 furniture packs issued to vulnerable families; 4518 children and families participating in Mersey Waste Muncher cookery clubs; 447 families supported by School Uniform Reuse scheme; and Project UP; upcycling training schemes established in Wirral and Halton and furniture distributed to families in local housing associations. 	639	660		
Sub-total	642	671		
Totals tonnes	2,924	2,251		
	<i>2,32</i> 7	2,2,1		

Table 2. MRWA and Merseyside Re-use Activities, 2013-14

6. Recommended Re-use Delivery Options

In order to deliver this Strategy, a number of re-use options were identified (see Appendix 2). The options were evaluated by MRWA officers and prioritised based on affordability and deliverability. The prioritised options recommended are:

Recommendations								
•	Establish re-use shops at Household Waste Recycling Centres (HWRCs)							
•	Develop re-use, repair and up-cycling activities and support skills/training and volunteering opportunities in the third sector and in the community to influence behavioural change							
•	Support the development of a business waste resource efficiency programme							
•	Develop an on-line re-use Resource Exchange (MerseyBay)							
•	Review recycling credit scheme and explore awarding discretionary re- use credit payments							
•	Increase communications through social media and the development of the Re-use for Merseyside and Halton website							
•	Engage with registered social landlords and residents and encourage re- use of household goods							
•	Increase textiles re-use by growing capacity in order to develop and resource projects							
•	Investigate how to increase re-use of Trade Waste at HWRCs							

7. Re-use credits

The Authority should review its recycling credits system to explore the option to award discretionary re-use credit payments to organisations for household furniture, electrical appliances and similar household items. A number of Authorities including North London Recycling Authority, the Devon Authorities, Lincoln County Council, and Leicestershire County Council, currently apply re-use credits.

Re-use credits should only be paid to organisations that comply with quality and safety standards set by legislation in order to ensure all items offered for sale or distribution are 'fit for purpose'.

8. Conclusion

Re-use is the second level of management in the statutory Waste Hierarchy and the Authority should consider how it can best support increased re-use activity in the City Region as part of a wider circular economy.

MRWA has already successfully supported re-use activities through its HWRCs and Community Funded projects in the last few years and has helped to raise awareness of waste as a valuable resource through its waste prevention programme.

The concept of a circular economy where resources are re-used for longer and more efficiently, offers a range of opportunities for MRWA to contribute to a sustainable City Region. MRWA is in a prime position to help develop a Resource Management Strategy in partnership with key stakeholders to develop programmes that can lead to economic, social and environmental benefits for residents and businesses in the City Region.

The options proposed intend to increase local community action to deliver re-use and at the HWRCs where a significant amount of unwanted and valuable goods are sent for disposal by residents. The Authority's communications and social media also provide opportunities to increase engagement and practical information through the Re-use for Merseyside and Halton website. The recycling credits payment scheme should also be reviewed to consider an option to pay credits for re-use.

As a provider of waste management facilities in Merseyside, MRWA can act as strategic lead with the opportunity to offer support and/or capacity for re-use of commercial and industrial wastes as well as household waste.

Overall the recommendations put forward will help create or safeguard existing jobs protect the environment and provide social cohesion within a framework of resource efficiency and the circular economy.



Re-use, repair and up-cycle together



Develop

Re-use shops at HWRCs Community repair and upcycling shops Business resource efficiency Relationships and partnerships



Support

Re-use through the Third Sector Skills training and volunteering Social landlords and residents to re-use Increase re-use of trade waste Behavioural change



MERSEYSIDE RECYCLING & WASTE AUTHORITY MERSEYSIDE... A PLACE WHERE NOTHING IS WASTED



Communicate

Re-use Resource Exchange (MerseyBay) Re-use opportunities to the third sector Re-use through the web/social media Re-use and repair in the community Textile reuse and donation



Preserving of finite resources Saving water Conserving energy Safeguarding wildlife habitats Reducing carbon emissions Avoid landfill



Social value Employment Skills/Training Volunteering





Savings Not-for-profit Profit New businesses Resource efficiency Circular Economy

Appendix 1

Re-use drivers for the Liverpool City Region



"An alternative to a traditional linear economy (make, use, dispose) in which we keep

resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life."

Over the past century the use of non-renewable natural resources has increased eight fold to meet global construction, energy, mineral and food demands. An increasing number of individuals, organisations, and businesses advocate the need to move towards a circular economy where natural resources are kept in use for as long as possible through re-use or recycling, where waste is designed out of products and goods and components can be re-used, repaired and remanufactured.

Roadmap to a Resource Efficient Europe, 2011

Resource efficiency means using the Earth's limited resources in a sustainable manner while minimising impacts on the environment. It allows us to create more with less and to deliver greater value with less input.

The resource-efficient Europe flagship initiative is part of the Europe 2020 Strategy, the EU's growth strategy for a smart, inclusive and sustainable economy. It supports the shift towards sustainable growth via a resource-efficient, low-carbon economy.

Waste Electrical and Electronic Equipment Regulations, 2013

The WEEE system is intended to minimise the disposal of WEEE as unsorted local authority collected municipal waste by establishing a network of Dedicated Collection Facilities (DCFs). This is to ensure that all household WEEE collected at such DCFs is sent for treatment, recovery or recycled. Obligations are imposed on distributors (i.e. retailers) in relation to the right of consumers to return certain pieces of WEEE to distributors free of charge.

Sustainable Clothing Action Plan 2011 (DEFRA)

The Sustainable Clothing Action Plan (SCAP) ambition is to improve the sustainability of clothing across its lifecycle. By bringing together industry, government and the third sector it aims to reduce resource use and secure recognition for corporate performance by developing Sector-wide targets.

SCAP is led by WRAP but is overseen by a Steering Group, consisting of major retailers, brands, recyclers, sector bodies, NGOs and charities, and four working groups:

- Design,
- Re-use & Recycling,
- Influencing consumer behaviours and
- Metrics.

Leading clothing sector companies have pledged to measure and reduce their environmental footprints and signed up to the SCAP 2020 Commitment.

Resource Security Action Plan 2012 (Department for Business)

The Resource Security Action Plan (RSAP) intends to improve the capture of precious metals and rare earth elements. The Government has identified the need to help UK business become more resilient to variations in supply and demand for these raw materials.

The disposal of household goods, such as old mobile phones and laptops, means the UK is throwing away hundreds of millions of pounds worth of metals, including gold and platinum. Defra estimates that between now and 2020, the UK will dispose of 12 million tonnes of electronic equipment, a quarter of which will be IT equipment, consumer electronics and display devices. This would include 67 tonnes of palladium worth £1 billion at today's market prices.

The government also intends to set up a website providing information on the current and

future availability of these materials to help manufacturers plan more effectively.

Electrical and Electronic Sustainability Action Plan (eSAP) 2014

WRAP launched the new Electrical and Electronic Equipment Sustainability Action Plan (eSAP) in 2014. It aims to 'improve business efficiency and the sustainability of electrical and electronic products throughout their lifecycle'.

The intention of the plan is to bring together stakeholders in the electrical and electronic equipment sector (such as designers, manufacturers, retailers, recyclers and re-use organisations) and act as collaborative framework for 'sharing evidence and implementing sector-wide actions' to improve product and business efficiency.

According to WRAP, 55% of people they surveyed said they would buy second-hand technology products. There are significant opportunities for businesses and consumers through trading-in used electronic equipment and designing longer life appliances.

The plan will seek to boost efficiencies in a range of products, but especially televisions, laptop computers, vacuum cleaners, refrigeration products and washing machines, which WRAP has identified as having the greatest resource impacts on the UK market.

Liverpool City Region Low Carbon Economy Plan 2011 – 2015

Economic and business opportunities are arising at a significant pace from the radical changes that need to be made to technology, methods of production and forms of consumption to become a low carbon economy. The challenge for businesses and economies, including Liverpool City Region, is in being ready to capture and realise these opportunities.

The Low Carbon Economy for the Liverpool City Region centres on the four key areas of;

- Energy
- Networks
- Transport and
- Buildings.

The Authority sees the low carbon economy as being intrinsically linked to its strategic aims and objectives and is a key partner in the Liverpool Green Partnership

The key low carbon activities in Liverpool City Region are:

- Environmental consultancy with a number of large multi-disciplinary consulting firms and a range of smaller specialists;
- Energy management including specialists in insulation, glazing, lighting, controls and Heating, Ventilation and Air Conditioning (HVAC);
- Renewable energy, especially in the marine sector, including suppliers of products, fabrications and specialist services to the offshore wind energy market (e.g. corrosion protection, port facilities and supply boats);
- Waste management and recycling, including some of the major waste management firms, specialists in key sectors and recycling firms in areas such as plastics, glass and composting;
- Water & wastewater treatment including fabrication companies and specialists in filtration and chemical treatment.

Appendix 2: Re-use Delivery Options

Re-use mechanisms can be divided into two main areas of activity:

Policy, regulation enforcement and contracts: these direct organisations to restrict waste generation, separation of materials or methods of treatment/disposal and;

Behavioural change through training, awareness and education: these support residents and businesses to influence their consumption patterns and value products as resources rather than waste.

The options for this Strategy relate to the second area of influence and changing behaviour within the City Region as listed in Table 1 below and are not in any order of priority.

Table 1. Re-use options

1. Support third sector reuse enterprises and increase skills/training and volunteering

The City Region has a large number of successful social enterprises and charities that excel in supporting re-use. The Furniture Resource Centre and Bulky Bob's household waste collection service are internationally recognised as exemplar organisations that reduce waste and offer social value. There are other organisations including Emmaus Merseyside, Wirral Independent Recycling Enterprise (WIRE), Helping Hands in Sefton and Groundwork that contribute significantly to resource collections, re-use and training people with transferable skills.

2. Engage with registered social landlords and residents and encourage re-use of household goods

Registered Social Landlords (RSLs) have become the main agent for social housing (maintaining existing stock, refurbishing old stock and building new homes). Potentially, they can play a key role in partnership with the Authority and local community organisations for reuse of unwanted household goods from residents and vacant properties and to raise awareness and support behaviour change with tenants. There are a range of opportunities to do this through establishing and supporting local community shops for preloved goods, provision of information, training and volunteering in re-use, repair and upcycling of goods and community organised Give and Take Days events. This could operate alongside support for increasing yields and quality of recyclates from residents in rented housing.

3. Increasing textiles re-use

Approximately 21,000 tonnes of textiles which could be re-used or recycled is thrown away on Merseyside. The Authority has worked with WRAP, national and local charities to establish the Merseyside Textile Forum in 2011. Baseline research was undertaken in 2012 which showed the recyclable and reusable element of residual textiles is approximately 13,800 tonnes or 22kg per household. The revenue from textiles currently going to landfill on Merseyside could be upwards of £3,400,000 (where value is £500+per tonne.).

In 2010/11, local authority provided infrastructure was capturing 16% of the available textiles. This rose to 41% when charity shops were included. However, to accurately measure textile diversion from landfill, charity shops need to provide tonnage data on a regular basis. There remains a significant amount of textiles available to target in the City Region for re-use plus additional social value and the highest levels of carbon reduction for any household waste material.

The Authority reduced the level of third party recycling credits for textiles to incentivise increased diversion of textiles from landfill. The Authority considers financial support for Forum projects on a case by case basis. The Merseyside Textile Forum has increased communications through developing the Pass It On campaign, increased partnership working with charities for collections from universities and householders and developing the skills base in textile re-use e.g. sewing and upcycling of fabrics. There remains a need to increase capacity to develop and resource projects. There are opportunities to consider widening the remit of the Forum to include Halton charities and looking at business textile re-use.

To support local authorities and promote more textile re-use, WRAP launched a 'Love Your Clothes' campaign in 2013 in order to raise awareness of the value of clothes and help people to make the most of the clothes they already have. The campaign focuses on encouraging people to think about way they purchase, use and dispose of clothes. WRAP estimate that the average family wardrobe contains clothing worth approximately £4,000. Some of the clothes have not been worn for more than a year.

Clothing research by WRAP (T-Shirts and woollen jumpers), estimates that 50% (120 million) of T-shirts (30,000 tonnes per year) and approximately half of all woollen jumpers (42,000) are reused in some form in the UK every year. Together, T-Shirts and woollen jumpers avoid 920 million tonnes CO2-eq per year. Each T-shirt and woollen jumper reused can yield over £1 net revenue to reuse organisations.

Households can benefit by over £190m per year as a result of sale of items through reuse exchange and avoiding purchase of (more expensive) new items.

4. Review recycling credit scheme and explore awarding discretionary re-use credit payments

A number of Authorities including North London Recycling Authority, the Devon Authorities, Lincoln County Council and Leicestershire County Council have reviewed their recycling credit systems and opted to introduce re-use credits. Credits are paid to organisations offering household furniture, electrical appliances and other similar household items to residents for reuse.

Re-use credits are only paid to organisations that comply with quality and safety standards set by legislation to ensure all 'items' offered are fit for purpose.

5. Establish re-use shops at Household Waste Recycling Centres (HWRCs)

WRAP has established that of the bulky items taken to HWRCs, 36% were judged to be reuseable by householders and 32% by weight were re-usable in their current condition. When taking into account those items that needed slight repair, the number of re-useable items increases to 51%.

In order to be sustainable and succeed in the long-term, re-use shops should expand to include the safety testing of electronic and electrical equipment, the repairing of goods, or turning a product into something new through the skills of refurbishment and up-cycling. Goods that are beyond use could be de-constructed and parts salvaged or recycled separately. Also to be considered is the establishment of a hire/rental facility for items that are not used on a regular basis or higher value such as hand and power tools and ladders.

In 2013/14, 5,747 tonnes of Waste Electrical and Electronic Equipment (WEEE) (fridges, printers, mobile phones, small and large household items and TVs) were deposited at Merseyside HWRCs. Of this, 15% was re-used (863 tonnes).

Veolia will be opening a charity run re-use shop at South Sefton HWRC in 2015 with potential to widen availability commencing with the new HWRC in Liverpool.

6. Increase re-use of trade waste at HWRCs

The UK generates approximately 48 million tonnes of Commercial and Industrial waste and of this, 52% is recycled or re-used.

MRWA and Veolia have teamed up to offer a trade waste recycling scheme for business, industrial and commercial waste. The Trade Recycling Centres at Bidston and Huyton HWRCs offer a 'pay by the load' recycling and waste disposal service to businesses and traders.

Traders are asked to register, sort their waste and recyclable items and visit the Centre to deposit items in the marked containers. Disposal costs are based on vehicle size and what materials are to be disposed of.

In 2014/15, 1,225 tonnes of trade waste was deposited at 2 Household Waste and Recycling centres (Huyton, Bidston) compared to 426 tonnes in 2012/13. 52% of this waste type was recycled in 2012/13 and 99% was recycled in 2014/15, an increase of 47 per cent.

Potentially, a significant proportion of this trade waste could be reused (e.g. bricks and blocks. Timber, slates and tiles) as opposed to being recycled whereby it is usually crushed or shredded and no longer usable for what it was intended. MRWA should investigate how best trade waste could be reused.

7. Support the development of a Business Waste and Resource Efficiency Programme

The cost of business waste can range from 2 to 10 per cent of turnover. All businesses operate in different ways and will generate waste in differing quantities and frequencies. Despite this; they can all make waste efficiencies and improvements somewhere, save money and commit to protecting the environment. Managing waste effectively is part of being resource efficient.

The Authority should consider working with partners to develop a Resource Management Strategy for the region which would cover a wide range of commercial and industrial waste as well as household and promote the circular economy and provide clear synergies and opportunities for re-use.

8. Encourage re-use and repair in the home and the community

Re-use in the home and the community offers opportunities to deal with some waste packaging streams that can be easily re-used – for example, boxes, bottles and jars and plastic bags. However, there is still a significant amount of EEE, wood (DIY waste, furniture), textiles, books, CDs, bicycles, tools and paint that end up in household bins. Such waste needs to be diverted through effective communications.

Unless irreparably damaged, household items that are broken should first be repaired. However, many consumer products are relatively inexpensive to replace therefore when they malfunction there is a tendency to simply replace the product.

Through a programme of information, education and awareness, MRWA could encourage and influence reuse and repair in the home and community and for such activities to become second nature for residents.

9. To influence residents' behaviour in order to shop SMART

The notion of SMART (Save Money And Reduce Trash) shopping can be encouraged and influence through education, information and awareness programmes. Ultimately, waste is a consequence of what consumers buy and eventually discard therefore, an understanding of purchasing decisions can include; being informed about issues such as durability, eco-friendliness, eco-labelling, necessity, packaging and reusability.

Knowledge can also discourage the purchasing of disposable or single-use products such as batteries, cameras, nappies and shaving blades and the acceptance of free plastic carrier bags.

Being well-informed and aware can lead to savings for residents and in-directly – the Authority and the districts.

In partnership with WRAP and Tesco, MRWA is helping the people of Liverpool City Region waste less food and to save more money and protect the environment as part of a 10 City Challenge. The average family throws £720 worth of food every year whilst, wasted and discard food emits 17 million tonnes of carbon.

The 'Save More' campaign is currently running free food waste prevention training, cookery classes and kitchen skills classes offering training to individuals, groups and businesses. The campaign looks at food waste at home and provides individuals with all the skills and confidence to spread the Love Food Hate Waste message. On completion of the training, people are encouraged to volunteer to join an ever growing network of food champions.

The Authority's current Love Food Hate Waste campaign demonstrates to residents that by following some simple actions (plan meals, understand dates labels, know their freezer, be savvy about storage and making sure they use the right portions) they can save money. Since 2011, MRWA has directly engaged with more than 37,500 Merseyside residents at a range of public events in order to inform influence and change people's perception and

range of public events in order to inform, influence and change people's perception and behaviour about wasting resources and money.

Food poverty is on the increase in the UK. It is estimated that 4 million people are classified as being in food poverty; this is at a time when there is a mountain of food waste. In some cases being SMART can help when money is tight and there are mouths to feed. The Authority's current Love Food Hate Waste campaign demonstrates that by following some simple actions (planning meals, understanding dates labels, knowing their freezer, being savvy about storage and making sure they use the right portions) residents can save money and eat healthily.

One of the reasons we waste food is that we buy too much in the first place. Food donation is recognised as an effective lever in reducing the amount of edible surplus food going to waste and counteracting against food poverty, especially in times of economic and financial crisis.

Reuse is a new information and communication message for MRWA; therefore it is important that the Authority's website and that of the partnership are reviewed for content, relevance and consistency.

10. Develop an on-line re-use Resource Exchange (MerseyBay)

There are now global on line buying, exchange and barter sites that have emerged in the last decade such as Ebay, Gumtree and Pre-loved and membership is growing all the time. At local level there are Freecycle exchange websites across the region with more than 80,800 members compared to 1,300 in 2006. Facebook has many local community groups on its pages with tens of thousands of residents exchanging goods in each group.

With this level of interest in community self-support, the Authority should consider providing a central portal where residents would be one click away from finding or donating useful household items. In time, a similar portal could be developed for business waste and resources.

11. Increase communications through social media and the development of a Re-use for Merseyside and Halton website

Websites, social media and Apps are valuable tools for faster and easier communication of information, guidance and to raise awareness. This can include quick surveys, instant responses to issues and debates. WRAP has recently launched a new version of the Love Food Hate Waste App which allows easier tracking of food planning, shopping, cooking meals and making the most of leftovers. The App also has lots of great recipe ideas and tips for re-using forgotten foods and leftovers to make great tasting meals.

Over the past three years, the Authority's web traffic has increased sevenfold. For example, in 2014, the Authority made 66,018 impressions (the number of times the user saw the tweet). There were 389 followers in 2014 and the Authority issued 316 Tweets.

The Authority owns the domain for Re-use for Merseyside and Halton and together with the Twitter and Facebook pages on the Authority website should increase the level of communication and activities as a dedicated re-use resource.

12. Promote the benefits of trading at or buying from car boot sales

Research by Durham University in 2013, estimated that car boot sales divert between 50,000 and 60,000 tonnes of household items from landfill per year in England. Approximately 14 million people attended car boot sales in England in 2013 and purchased about 4 kilograms of goods each. Should 10% of Merseyside's residents regularly attend car boot sales, it is estimated that 600 tonnes of household items are diverted from landfill each year. The greatest purchases at such sales are toys and baby/children related goods (29% - 19,500 tonnes) followed by clothing (23% - 14,350 tonnes) and furnishings (20% - 15,000 tonnes).

The quantity of goods bought at car boot sales have shown to be significant in terms of tonnages and of a similar order of magnitude to that which passes through Furniture Re-use Networks. The Authority should seek maximise social media communications to advocate and promote such events as they are important in the circulation of goods in the community and for diverting unwanted household items from landfill.

13. Encourage and support community Swap Days

Swap Days are events that are held in the community whereby residents bring, to a local venue (community centre/church hall), unwanted household good to swap. At such events, no money changing hands.

Research of a typical Swap Day event highlights that approximately one tonne of unwanted households items can be diverted from landfill. In terms of social value, one tonne of swapped items have a second-hand value of approximately £1,000 which remains in the community. Given such favourable outcomes, the Authority should seek to support community organisations that which to organise such events.

Appendix 3

Assessment and scoring of options

Assessment and scoring of the options identified in Appendix 2 are scored in 2 parts;

Assessment

a) Priority (measured as High, Medium and Low); and

b) Deliverability measured as time, cost and quality.

Scoring

Each measure for the two assessments is scored from 3 to 1.

The priority total score multiplied by the deliverability total score gives an overall score for the option.

Table 1 below ranks the higher scores (27 > 21) for options considered as priority of the deliverables listed in Section 6 of the Strategy.

Table 2 provides the details of scoring and ranking.

Rank	Options	Score
1	Establish re-use shops at Household Waste Recycling Centres (HWRCs)	27
2	Develop re-use, repair and up-cycling activities and support skills/training and volunteering opportunities in the third sector and in the community to influence behavioural change	24
3	Support the development of a business waste and resource efficiency programme	24
4	Develop an on-line re-use Resource Exchange (MerseyBay)	24
5	Increase communications through social media and the development of a Re-use for Merseyside and Halton website	24
6	Review recycling credit scheme and explore awarding discretionary re-use credit payments	24
7	Engage with registered social landlords and residents and encourage re-use of household goods	21
8	Increase Textiles Re-use	21
9	Increase re-use of trade waste at HWRCs	21

Table 1. Ranking and scores of options

N°	Options	Priority		Total		Deliverability	eliverability			
		High	Med	Low		Time	Cost	Quality	Sum	Score
						(H, M, L)	(H, M, L)	(H, M, L)		
1	Support third sector reuse					Merged with	Option 13		•	
	enterprises and increase									
	skills/training and volunteering									
2	Engage with registered social	3			3	2	2	3	7	21
	landlords and residents and									
	encourage re-use of household									
	goods									
3	Increase Textiles Re-use	3			3	2	2	3	7	21
4	Review recycling credit scheme	3			3	3	2	3	8	24
	and explore awarding discretionary									
	re-use credit payments									
5	Establish re-use shops at	3			3	3	3	3	9	27
	Household Waste Recycling									
	Centres (HWRCs)									
6	Increase re-use of trade waste at	3			3	3	2	2	7	21
	HWRCs									
7	Support the development of a	3			3	3	2	3	8	24
	business waste and resource									
	efficiency programme									
8	Encourage re-use and repair in the					Merged with	Option 13			
	home and the community									
9	To influence residents' behaviour in					Merged with	Option 13			
	order to shop smarter									
10	Develop a Re-use Resource	3			3	3	2	3	8	24
10	Exchange (MerseyBay)	Ũ			Ũ	Ū	-	Ū	Ũ	2.
11	Increase communications through	3			3	3	2	3	8	24
	social media and the development									
	of a Re-use for Merseyside and									
	Halton website									
12	Promote the benefits of trading at			1	2	2	1	3	6	6
	or buying from car boot sales									
13	Encourage and support community		2		2	2	1	3	6	12
	Swap Days									
14	Develop re-use, repair and up-	3			3	3	2	3	8	24

Table 2. Option scoring based on priority and deliverability

Appendix 1

cycling activities and support					
skills/training and volunteering					
opportunities in the third sector and					
in the community to influence					
behavioural change					