CIWM

UK Waste Sector COVID-19 Response and Resilience Report

December 2020

Attribution for Research and Report

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With thanks to all the sector stakeholders who contributed to this research report.

Front cover image courtesy of FCC Environment.

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Foreword

I am delighted to welcome you to this report, which has been jointly produced by CIWM and the University of Exeter based on input from stakeholders across the UK resources and waste sector.

There is no doubt that 2020 has been an extremely challenging year for the resources and waste sector, as well as many others. The entire supply chain has had to manage unprecedented levels of uncertainty, react to multiple and different pressures, and maintain services and supply chains that are critical to the protection of public health and the environment, as well as keeping valuable resources in use.

Reading this report I am struck by the array of practical and operational measures that were developed and deployed to cope with the COVID-19 pandemic. This is, after all, a dynamic and responsive sector that constantly has to react to meet and manage the demands and expectations of multiple stakeholders, from householders to international material markets. The real highlight for me, however, is how people working across the sector have responded. From stories about collection crews going the extra mile to maintain vital and valued services to collaborative cross-sectoral working and information sharing at the highest strategic level to monitor sector resilience and inform contingency planning, there has been a collective will to overcome the challenges that COVID-19 has presented.

However, as the report rightly points out, the full impact of the pandemic on our infrastructure and services is far from clear at this point in time. These are likely to range from workforce mental health implications and reduced business income and resilience through to additional service costs for local authorities and the private sector, and treatment capacity that has been hit by feedstock and end market disruption. We may have been remarkably resilient as a sector but there will inevitably be a price to pay, and more work will be needed to properly assess the long-term consequences.

In a similar vein, while it was very encouraging to see recognition both from the public and from UK governments for the essential public health aspect of our work, it is equally important to keep clearly in view the contribution this sector can make to the UK's wider green recovery and net zero ambitions. We must not let COVID-19 take our eyes off the bigger picture, including the major reforms currently underway to create new policy frameworks to improve and properly fund the collection and recycling of packaging waste. As well as delivering a step change in recycling these will also contribute to making the sector more resilient going forward. Some of the learning captured in this report should be harnessed and addressed to support these wider recovery and new policy objectives. Indeed, it is noteworthy that many of the issues and supply chain vulnerabilities highlighted are not a surprise; some have long been identified as factors that hold this sector back.

It is also important to note that the research that has informed this report was not designed to be comprehensive. It is a snapshot in time provided by a range of professionals working across different parts of the sector who spared us their time to reflect back on the first six months of the pandemic and assess what the sector might face going forward. There will be many examples of innovative working and collaboration not captured here, but we hope this report will be a useful starting point and will stimulate further reflection and learning in the months ahead. CIWM has also prioritised areas where it will take action to support both immediate and long-term sector resilience and as the current CIWM President, I look forward to working with CIWM Members and the wider sector to make these happen.

So, in closing, I would like to thank everyone in the sector for their hard work during 2020 and look forward to working with you as we take on the opportunities and challenges that 2021 will bring.

Trevor Nicoll
CIWM President

Executive Summary

From the beginning of March 2020, when COVID-19 was confirmed as a pandemic by World Health Organization, many sectors across the UK had to respond to an uncertain and rapidly evolving situation, including the introduction of a UK-wide lockdown on the 23rd March. The resources and waste sector, as a frontline service that protects both human health and the environment, had to maintain operations and this necessitated contingency planning on an unforeseen scale, with significant cross-sector engagement and collaboration, and new methods of working.

To capture some of the learning from the first six months after the start of the UK-wide lockdown, the Chartered Institution of Wastes Management (CIWM) has been working in partnership with the University of Exeter to undertake a UK-wide research exercise with multiple stakeholders across the resources and waste management sector. This forms part of a wider project led by the University of Exeter and funded by the Economic and Social Research Council, as part of UK Research and Innovation's Rapid Response to COVID-19.

The study used a qualitative social science methodology, undertaking a series of workshops and in-depth interviews with representatives from across the sector. Participants included national and local government officers, environmental regulators, and local authority and private sector waste professionals. Held in October 2020, this stakeholder engagement exercise explored immediate challenges, winter preparedness, and what is needed to support longer term sector resilience.

It should be noted that this report is based on the discussions and feedback from sector representatives who generously took part. It is not designed to be a comprehensive assessment or account of the sector's response but rather a snapshot in time during Autumn 2020 as the UK readied itself for the likelihood of a second wave of COVID-19 through the winter months. Much of the data and evidence that will be needed for a thorough assessment of the full impact of the pandemic on the sector is not yet available, but this report is designed to be a first step in the process to stimulate further reflection and learning.

Key Findings

Clear and common themes emerged from the workshops and interviews, both in relation to the response to the pandemic to date and in terms of ongoing preparedness and long-term resilience.

1. Collaborative contingency planning: The value of early and collaborative cross-sector engagement with UK governments on contingency planning and communications, as well as contingency planning for local authority waste services through local government bodies and networks, was emphasised in all of the workshops. As the pandemic unfolded quickly, lockdown restrictions were implemented, and policy measures and business support packages emerged daily, the overriding feedback was that these contingency planning fora were critical in supporting the sector. They provided regular opportunities to understand developments as they were happening and gave early warning of potential disruption, gathered intelligence on impacts across the sector, and shared understanding and learning.

This collaborative planning also helped inform multi-channel consumer facing communications campaigns developed in the four UK countries to support local authorities. In England, Northern Ireland and Wales, these were developed and led by WRAP, and in Scotland by Zero Waste Scotland. The campaigns continued to evolve and were flexible enough to adapt and introduce additional messaging to address emerging issues, for example the littering of Personal Protective Equipment (PPE) and the reopening of Household Waste Recycling Centres (HWRCs).

Most participants felt that this collaborative cross-sectoral engagement should be maintained to support the sector during the Winter 2020/Spring 2021 period and could also be adapted over time to support the sector's response to other challenges and developments, including EU Exit, the implementation of other key waste-related policies such as the new proposals for packaging Extended Producer Responsibility and Deposit Return Schemes, and the UK's 'green recovery' plans.

There was also a strong desire to maintain the visibility, recognition and understanding of the sector both as an essential service and as a sector that has a key role to perform in supporting a resilient 'green recovery' and the delivery of the UK's net zero ambitions.

2. Service delivery and infrastructure resilience: Early action by the UK governments to ensure key worker status for the sector was critical to maintaining service delivery. This ensured that frontline waste management workers were exempt from the essential travel restrictions, had access to school places, and over time had priority access to testing as the testing programmes were rolled out by UK governments.

While reflecting a few key differences between the four countries, service prioritisation guidance from the UK governments for the local authority sector was broadly consistent, as was the strategy employed by local authorities. Maintaining kerbside collections of residual waste, food waste and dry recycling was prioritised, with redeployment of staff from other collection services (bulky and garden waste), HWRCs and local environment cleansing operations, which broadly reduced in frequency or were suspended. Private sector companies with local authority contracts also redeployed staff from commercial collections to support increased municipal demand. While significant staffing pressures were noted in some areas due to sickness and self-isolation, core local authority services were maintained,

and online platforms developed to support the sharing of staff between the public and private sector were not used. However, the overall economic impacts on local authorities resulting from increased staffing and operational costs, as well as higher levels of household residual waste and recycling as a result of restrictions and home working, are not yet clear.

Elsewhere in the supply chain, various parts of the UK's private sector collection, sorting and reprocessing infrastructure saw higher levels of disruption. Some of this was due to reduced flows of specific wastes from suspended local authority activity (such as the closure of HWRCs) and the closure of non-essential businesses during the UK-wide lockdown, which resulted in a drop in commercial and industrial (C&I) and hospitality sector waste. Biowaste treatment facilities, waste wood and Waste Electrical & Electronic Equipment (WEEE) reprocessors, and C&I waste collectors all experienced significantly reduced volumes of material - with the latter reporting 60 to 80% reduction on the previous year's activities in some areas. In addition, there was increased volatility in some recycling markets and major disruption in export markets for textiles. The third sector was also significantly impacted, with re-use provision through HWRCs suspended and high street charity re-use shops closed.

A number of challenges emerged in the healthcare waste sector, including significant pressure on the relatively small number of UK healthcare waste experts and gaps in data, particularly on the significant volumes of non-NHS healthcare waste generated by allied health professionals, private sector, and social care. In addition, despite the rapid development of Standard Operating Procedures and guidance that was disseminated through a range of NHS and other channels, on-the-ground uncertainty about viral transmission risks, the prevailing 'infection control' focus, and multiple channels of communication have led to persistent and ongoing misclassification and mis-segregation of healthcare waste. This has increased existing pressures on healthcare waste collection, storage and treatment infrastructure.

From a householder/consumer perspective, the prioritisation of kerbside collections of residual waste and recycling, coupled with the closure of HWRCs and charity shops, also meant that access to normally available re-use and disposal outlets for unwanted items and bulky wastes was severely curtailed. At the same time, there was an increase in household de-cluttering and DIY activities and associated waste arisings. As a consequence, pressure built up to re-open HWRCs during April 2020and questions arose over what constituted an 'essential journey' and how to address on-site operational and safety concerns. All of these had to be considered and co-ordinated to ensure HWRCs could re-open safely and this led to substantial collaborative work being undertaken to develop guidance and good practice to support the safe re-opening of these facilities.

Overall, while it was felt that the sector had shown a good level of resilience and participants were positive about the contingency measures implemented in the first months of the outbreak, some of which remain in place to support the response during Winter 2020/Spring 2021. The sector is not facing the same uncertainties experienced early on in the pandemic but is likely to experience a compounding of some of the existing challenges - especially over the Christmas period. Maintaining cross-sectoral working and communications activities, supporting the development of additional WISH guidance if needed, and continued flexibility from UK environmental regulators were all felt to be important areas of sector support. Further work to support the correct classification and segregation of healthcare wastes was also identified as a priority, particularly given the imminent mass roll-out of COVID-19 testing and vaccination programmes.

However, the long-term effects on the different parts of the sector are not yet clear and many participants felt that the pandemic has served to highlight the critical interdependencies and vulnerabilities in the supply chain that will require further attention in the context of future sector resilience.

3. Regulatory clarity and flexibility: Clarity from the regulators in each UK country was identified as critical for maintaining operations. While there was some variation in the approach taken by the four UK regulators during the early weeks after the first lockdown restrictions were put in place overall, participants broadly welcomed the increased flexibility and engagement to support the sector's needs. It helped to reduce uncertainty around various operational and compliance issues raised by COVID-19 and provided additional confidence even though some of the COVID-19 regulatory positions were ultimately not needed. Direct regular updates to regulated businesses also ensured that stakeholders were kept informed as the pandemic unfolded.

Workshop participants identified that ongoing engagement with UK environmental regulators would be welcome, and continued flexibility to accommodate any impacts that may arise during the coming months, including reviewing temporary COVID-19 regulatory positions if needed. There was recognition that regulators may experience additional pressures associated with higher flooding risks and other winter events, coupled with the implications of EU Exit.

4. Data: Because of the systems already in place to capture local authority waste data, and because this part of the sector has strong networks to allow the data to be accessed, it was relatively easy to develop an ongoing understanding of the impacts on household waste collection services as the pandemic unfolded.

The availability of reliable and comprehensive data for C&I waste, however, has long been acknowledged as a challenge for the resources and waste sector. This is due to a range of factors including the number of different sub-sectors that comprise the sector, commercial sensitivities, and low level of reach into the sector's SMEs. Efforts to address this included ensuring that both the larger and smaller private sector organisations were represented on the various government-led contingency planning groups, as well as those representing specific sub-

sectors such as biowaste treatment. The environmental regulators engaged directly with regulated businesses and in some cases, industry surveys and regular RAG (Red Amber Green) reporting were used to assess the impacts on private sector companies.

For immediate Winter 2020/Spring 2012 preparedness, it was noted that development of a more standardised methodology for data capture across the private sector would be helpful to generate a similar granularity of data as recorded in the local authority sector surveys. In the longer term, reliable and comprehensive C&I waste data is an important gap that needs to be addressed to improve resilience to 'system shocks'.

5. Health & Safety and general COVID-19 guidance: Given the significant uncertainties around the COVID-19 pathogen and its transmission in the first months of the pandemic, the rapid and iterative issuing of the Waste Industry Safety & Health Forum (WISH) good practice Health & Safety information was welcomed across the sector. The information was adapted by other organisations, including SWITCH and WISHNI, to accommodate variations in approach across the four UK countries.

As well as supporting the safe delivery of ongoing operations, services, and service restarts across the sector, the existence of these sector specific expert Health & Safety groups proved important to the sector's engagement and relationship with trade unions on safe practices and working conditions.

Recommendations on improving short- and long-term resilience included research to develop a fuller understanding of the pathology of COVID-19 and its behaviour in the waste system, and a collaborative review of the WISH and other sector-related guidance to help inform and develop a blueprint for potential future pandemics.

Beyond specific Health & Safety information for the mainstream resources and waste sector, the proliferation of official government guidance was identified as a source of confusion and uncertainty, particularly during the early part of the pandemic before some consolidation took place. This was particularly highlighted in relation to variations in approach to national and local restrictions and business 're-opening' measures that emerged after the first UK-wide lockdown was lifted. This was true both in operational terms for those working across different boundaries and borders, and for sector bodies seeking to provide consolidated, up-to-date information to support the sector.

Workshop participants felt that there were contingency planning lessons to be learned across the board in relation to information and guidance, both for the resources and waste sector and its industry bodies, and for relevant UK governments' departments and pan-UK co-ordination, particularly given the devolved nature of waste policy. However, high levels of engagement by UK governments with sector bodies and networks was seen to have provided a valuable knowledge sharing and co-ordination function and should form part of future contingency planning strategies.

6. People: Unsurprisingly, resilience in terms of the people working in the sector was a recurrent theme. Immediate lessons from the pandemic thus far include:

- the heavy dependence on a small number of experts for the development of both Health & Safety and healthcare waste good practice and guidance;
- the need to maintain and further develop effective working relationships with trade unions; and
- and a renewed focus on skills to ensure greater workforce flexibility and help resource-lean organisations to be more multi-functional in the event of future 'system shocks'.

Emerging issues related to mental health and wellbeing in different parts of the sector were also noted and there was concern about potential jobs losses across the sector as commercial and industrial waste streams continue to be slow to return to norm.

Learning from the pandemic must inform future skills and training strategies for the sector, with an emphasis on specific gaps such as digital skills that can support rapid response and increased resilience. Like other frontline areas, there was widespread acknowledgment of the hard work and willingness to collaborate shown by many across the sector, with one workshop participant saying: "I am very grateful for people. So many people went the extra mile and it has had an impact on our normal way of working...".

7. Economic and environmental impacts: The economic and environment impacts of the pandemic have yet to be assessed. Additional costs have been experienced across both the local authority and private sector, whether as a result of additional staffing and PPE requirements, reduced income, or plant modifications to enable social distancing and manage changing waste volumes and composition.

Participants stressed that an assessment of the economic impact across the resources and waste supply chain is necessary, with the longer-term impact on the sector's SMEs and on local authority budgets highlighted as particular areas of concern.

The full environmental impact is equally unclear. Increases in household recycling rates have been reported, although whether this is a long-term change or is associated with increased recycling of packaging as a result of home deliveries and home working during the pandemic cannot be confirmed yet. While there was a considerable amount of anecdotal feedback suggesting increased littering and fly-tipping, reliable data are not yet available to support this. The mass littering on beaches and beauty spots was, however, widely reported in the media in late June as the UK-wide lockdown was lifted. Other changes in behaviour – notably the move away from re-usable packaging such as reusable coffee back to single use items cups due to concerns about virus transmission – appear to have been short-lived but once again reliable data will be needed to fully understand the impact on waste arisings. From a wider resource perspective, there were concerns about single-use PPE and the growing volumes of PPE waste that had

to be managed, as well as issues around littering of PPE and its presence as a contaminant in recycling streams.

CIWM Recommendations

Drawing on the recommendations that have emerged from the research, CIWM has identified eight priority areas for its own policy, technical and external affairs work in 2021 and beyond:

- to support and promote the collaborative cross-sector working that has developed during the COVID-19 pandemic;
- to support policy measures to improve the capture of waste data, particularly for C&I waste, to better inform future policy and planning;
- to support and promote pan-UK contingency planning mechanisms for future sector resilience and the delivery of a 'green recovery';
- to provide additional support to Health & Safety sector expert groups including WISH and SWITCH, and to the community of healthcare waste professionals;
- to prioritise sector skills, training and professional competence during 2021 and provide access to an expanded range of mental health, wellbeing and professional development support tools for CIWM Members;
- to work with UK governments to develop and implement policy frameworks, including Extended Producer Responsibility schemes, that support sector resilience;
- to work with UK governments to ensure that essential resources, waste, recycling and re-use infrastructure is seen as strategically important to public health, the environment and a low carbon future; and
- to work with CIWM's Republic of Ireland Centre to carry out a similar assessment of the COVID-19 sector response and resilience.

Image courtesy of FCC Environment

Glossary - Organisations

Acronym	Definition
ACP	Advisory Committee on Packaging
ADEPT	Association of Directors of Environment, Economy, Planning & Transport
APSE	Association for Public Service Excellence
ARC21	An umbrella waste management group in Northern Ireland representing 6 councils in the east of the Province
CIWM	Chartered Institution of Wastes Management
COSLA	Convention of Scottish Local Authorities
CRNS	Community Resource Network Scotland
CSS Wales	County Surveyors' Society Wales
DAERA	Department of Agriculture, Environment and Rural Affairs
Defra	Department for Environment, Food & Rural Affairs
DfT	Department for Transport
EA	Environment Agency
ESA	Environmental Services Association
EU	European Union
HSE	Health & Safety Executive
LARAC	Local Authority Recycling Advisory Committee
LEDnet	London Environment Directors' Network
LGA	Local Government Association
LWARB	London Waste & Recycling Board
NAWDO	National Association of Waste Disposal Officers
NHS	National Health Service
NIEA	Northern Ireland Environment Agency
NILGA	Northern Ireland Local Government Association
NRW	Natural Resources Wales
REA	Renewable Energy Association
RMAS	Resource Management Association Scotland
SAGE	Scientific Advisory Group for Emergencies
SEPA	Scottish Environment Protection Agency
SESA	Scottish Environmental Services Association
SIB	Strategic Investment Board
SOLACE	Society of Local Authority Chief Executives
SQA	Scottish Qualifications Authority
SWITCH Forum	Scottish Waste Industry Training, Competency, Health & Safety Forum
UKRI	UK Research and Innovation
UROC	United Resource Operators Consortium
WESA	Welsh Environmental Services Association
WISH Forum	Waste Industry Safety and Health Forum
WISHNI	Waste Industry Safety and Health Northern Ireland
WLGA	Welsh Local Government Association
WLWA	West London Waste Authority
WMN	Waste Managers Network
WRAP	Waste and Resources Action Programme

Glossary - Terminology

Acronym	Definition
AHP	Absorbent Hygiene Products
C&I	Commercial & Industrial
EPOC	Environmental Permitting Officer Certificate
HWRC	Household Waste Recycling Centre
LGV	Large Goods Vehicle
MRF	Materials Recovery Facility
PPE	Personal Protective Equipment
RAG	Red Amber Green
RPS	Regulatory Position Statement
SME	Small and Medium-Sized Enterprises
SOPs	Standard Operating Procedures
SWCN	Special Waste Consignment Note
TFS	Transfrontier Shipment of Waste
TSRF	Third Sector Resilience Fund
VCSE	Voluntary, Community and Social Enterprises
WEEE	Waste Electrical and Electronic Equipment

1 Introduction

The COVID-19 pandemic has affected every dimension of economic, social, and political life in the UK. Critical infrastructures and key sectors have been under the spotlight during this crisis; in particular the essential workers who maintain healthcare, education, and food systems. The resources and waste sector, as a frontline service that protects human health and the environment, as well as transforming recyclable materials into commodities and playing a key role in the move towards a Circular Economy, also had to maintain operations and has become more visible as a key sector during the pandemic.

Sector resilience in the face of COVID-19 necessitated contingency planning on an unforeseen scale, with significant cross-sector engagement and collaboration and new methods of working.

To capture some of the learning from the first six months after the start of the UK-wide lockdown, the Chartered Institution of Wastes Management (CIWM) has been working in partnership with the University of Exeter to undertake a UK-wide research exercise across the resources and waste management sector. This forms part of a wider project led by the University of Exeter and funded by the Economic and Social Research Council as part of UK Research and Innovation's Rapid Response to COVID-19 programme.

It should be noted that this report is based on the discussions and feedback from sector representatives who generously took part in the research. It is not designed to be a comprehensive assessment or account of the sector's response but rather a snapshot in time during Autumn 2020 as the UK readied itself for the likelihood of a second wave of COVID-19 through the winter months. Much of the data and evidence that will be needed for a thorough assessment of the full impact of the pandemic on the sector is not yet available but this report aims to capture some early learning to inform the immediate resilience of the sector as the pandemic progresses and for future, longer-term resilience. Based on a collaborative approach, it is designed to be a first step in the process to stimulate and support further reflection and learning.

2 Methodology

The research project used a qualitative social science methodology, with the aim of exploring and understanding:

- how the sector has responded to COVID-19 across the UK;
- what is immediately needed for further sector preparedness this winter; and
- what is needed to support longer term sector resilience in the event of future pandemics.

During October 2020, three UK country workshops, seven semi-structured in-depth interviews, attendance at a Northern Ireland DAERA organised Lessons Learned Workshop[1], and a review of the Waste and Resources Sector Forum in Scotland Covid-19 Waste Contingencies: Lessons Learned report were carried out, summarised in the table overleaf. To capture feedback from across the sector in each UK country, the workshops and interviews engaged representatives from:

- governments;
- regulators;
- healthcare waste professionals;
- public sector (local authority);
- private sector;
- third sector;
- Waste Industry Safety and Health Forum (WISH); and
- Scottish Waste Industry Training, Competency, Health & Safety Forum (SWITCH).

Prior to the workshops and interviews, all attendees were asked to complete a short survey which identified the five key immediate challenges they had faced as a result of COVID-19, and how each challenge was mitigated. This information was used to help direct discussions and inform the report content. To ensure this research was conducted ethically, and data was managed securely, all attendees were also asked to complete and return a consent form. This provided information on how personal data would be protected and how the research data would be used. Confirmation of consent was secured verbally within each meeting. The workshops and interviews were co-chaired by Dr Nicki Souter, CIWM, and Dr Angeliki Balayannis, University of Exeter, and were recorded using an encrypted audio recorder. These recordings were anonymised and securely transcribed for analysis.

Virtual online workshops and interviews were held

[1]Representatives from the 11 Northern Irish local government districts attended a Lessons Learned Workshop organised by DAERA which the research team attended. To further supplement understanding of the COVID-19 response in Northern Ireland, additional in-depth interviews were carried out with representatives from: WRAP NI, Arc21, Strategic Investment Board, Recycle NI, and CIWM NI.

Stakeholders			
Workshop 1: Wales 14th October	Workshop 2: England 15th October	Workshop 3: Scotland 21st October	Interviews and Workshop
CIWM Centre Council	Association of Directors of Environment, Economy, Planning & Transport (ADEPT)/North Yorkshire Council *(Public Sector)*	CIWM Centre Council/Suez *(Private Sector)*	Arc21 *(Public Sector)*
County Surveyors' Society Wales/Caerphilly County Council *(Public Sector)*	Department for Environment, Food & Rural Affairs (Defra) *(Government)*	Community Resource Network Scotland (CRNS) *(Third Sector)*	CIWM Centre Council/ WDR & RT Taggart *(Private Sector)*
Local Authority Recycling Advisory Committee (LARAC)/Monmouthshire County Council *(Public Sector)*	Environment Agency (EA) *(Regulator)*	Convention of Scottish Local Authorities (COSLA) *(Public Sector)*	Healthcare waste professionals in England, Scotland and Wales (Workshop)
National Health Service (NHS) Cymru	Environmental Services Association (ESA)	Resource Management Association Scotland (RMAS)	Recycle Northern Ireland/ Regen *(Private Sector)*
RecycleLink Wales	Local Authority Recycling Advisory Committee (LARAC) *(Public Sector)*	Scottish Environment Protection Agency (SEPA) *(Regulator)*	Strategic Investment Board
Welsh Environmental Services Association (WESA)	The Association for Renewable Energy & Clean Technology – Organics (REA)	Scottish Environmental Services Association (SESA)	SWITCH Forum
Welsh Government	United Resource Operators Consortium (UROC)	Scottish Government	WISH
Welsh Local Government Association (WLGA) *(Public Sector)*	West London Waste Authority (WLWA) *(Public Sector)*	The Association for Renewable Energy & Clean Technology – Organics (REA)	WRAP Northern Ireland
Waste and Resources Action Programme (WRAP) Cymru	WRAP England	Waste Managers Network (WMN) *(Public Sector)*	
		Zero Waste Scotland	

3 Results

3.1 UK Countries

The findings from UK country-level workshops and interviews explored immediate challenges, winter preparedness, and what is needed to support longer-term future sector resilience. Representatives from the public, private and third sectors, across the UK countries, all shared their experiences and concerns. The workshops focussed primarily on immediate challenges – as this was the most pressing issue at the time – and this is reflected in the structure of the results outlined below.

3.1.1 The Immediate Challenge

Participants highlighted six key immediate challenges and discussed the range of mitigation measures implemented to respond to these issues. The primary challenges outlined below are:

- contingency planning and communications – particularly in relation to key stakeholder engagement, intelligence gathering and sharing, regulatory easements and communication with consumers;
- service delivery, including early warning of disruption and how it was affected by the key worker status, guidance, and policy variation;
- staffing and resources, including the impacts of remote working, training, the use of PPE, and access to UK government funding;
- access to data;
- economic impacts; and
- environmental impacts.

The first three months of the outbreak presented significant challenges throughout the sector, however, overall participants felt positive about the response and many new measures implemented in the first months of the outbreak, will remain in place where relevant to support the response over winter 2020/21.

3.1.1.1 Contingency Planning and Communications

Cross-Nation Communications Group

Due to waste being a devolved issue there was not a UK-wide stakeholder engagement approach, however there was UK-wide co-ordination and information sharing at a policy level to support the response to COVID-19. Weekly meetings were held between the four UK governments to share information, learnings and help co-ordinate responses across the UK.

Key Stakeholder Engagement

Within each of the UK countries, small cells were established to co-ordinate the vertical and horizontal flow of information to ministers and to multiple stakeholders. These included local government, business support, key worker, public health, and other policy colleagues to try to ensure waste sector interests were recognised and addressed, with the initial challenges focussed around identifying the key issues and risks the sector was facing as COVID-19 emerged.

Therefore, one of the first steps for the senior government representatives within each UK country was to contact the key stakeholders and establish new cross-sectoral contingency planning and communication groups to support the co-ordination and flow of information; the first of these groups were set up quickly by the relevant four UK government departments during the second two weeks of March 2020 as the UK moved towards the first set of lockdown restrictions.

This cross-sectoral approach helped to:

- maintain public health and the safety of the workforce;
- develop risk logs to enable and facilitate a fuller understanding of the issues as they emerged, and provided clear mechanisms to co-ordinate communications and responses across the key agencies within each UK country;
- prioritise, support and inform local decision making to maintain ongoing service delivery and manage issues such as the reopening of HWRCs;
- identify where flexibility around licensing arrangements would be required to support the production of regulatory position statements across each of the UK countries, critical for maintaining operations; and
- provide intelligence, reassurances and support that similar challenges were being faced within different parts of the sector in each UK country.

The value of this collaborative and inclusive approach by UK governments was highlighted in almost all the workshops and discussions that informed this report. As the pandemic unfolded, lockdown restrictions were implemented, and other policy measures and business support packages emerged daily, the overriding feedback was that these fora provided a critical opportunity to understand developments as they were happening, feed in intelligence on impacts across the sector, provide an early warning function, and share understanding and learning. Comments from workshop participants included:

> *"I think that helped us survive some of those early questions, and also helped to give comfort across the sector that what people were doing was along the right lines and that we weren't alone, and that the challenges being faced were being faced in different ways by different people across the sector."*

UK Countries - Mechanisms for Cross-Sectoral Working	
England	Defra-led COVID Response Meetings with representatives from Defra, Environment Agency, Local Government Association (LGA), Association of Directors of Environment, Economy, Planning and Transport (ADEPT), ESA, UROC, CIWM, National Association of Waste Disposal Officers (NAWDO), London Waste & Recycling Board (LWARB), WRAP, REA, Advisory Committee on Packaging (ACP), Recycling Association, some of the larger waste contracts (SUEZ, FCC, Biffa, Veolia, Viridor).
Northern Ireland	DAERA co-ordinated and provided a link between various cross-sectoral groups. Strategic Waste Partnership with representatives from DAERA, Northern Ireland Environment Agency (NIEA), SIB, Northern Ireland Local Government Association (NILGA), Council Waste Forum, and individual local authorities. Government Waste Working Group an operational level group with representatives from DAERA, NIEA, Council Waste Forum, and individual local authorities. Commercial Waste Working Group with representatives from DAERA, NIEA, SIB and the private sector. The existing National Communications Campaign Advisory Panel Group with representatives from DAERA, WRAP NI and local authorities was used to develop a multi-channel consumer facing communications campaign.
Scotland	The COVID-19 Waste Contingencies Programme Board was established with senior representatives from Scottish Government, SEPA, Zero Waste Scotland and COSLA who undertook capacity planning and the development of service disruption, supply chain and a number of other programme workstreams to support sector resilience. Cross-organisation programme teams were established to address issues identified. COVID-19 Waste Sector Forum was established with representatives from Scottish Government, SEPA, Zero Waste Scotland, Society of Local Authority Chief Executives (SOLACE), COSLA, Waste Managers Network, Scottish Environmental Services Association (SESA), REA, CIWM, RMAS, and NHS healthcare waste. COVID-19 Waste Contingency: Commercial Operator Group with representatives from Scottish Government, SEPA, Zero Waste Scotland, SESA, REA, CIWM, and RMAS. COVID-19 Waste Communications Sub-Group with representatives from Scottish Government, SEPA, Zero Waste Scotland, Waste Managers Network, ESA, CIWM, RMAS, and Keep Scotland Beautiful. Additional subgroups were established to focus on specific issues.
Wales	Welsh Waste COVID Response Group established and weekly calls were held with representatives from Welsh Government, Natural Resources Wales, WRAP Cymru, all 22 local authorities, the Welsh Local Government Association, CIWM, and Welsh Environmental Services Association Welsh Government Link Officer co-ordinated communications and guidance from the Welsh Government to the 22 local authorities and wider sector, liaising with Public Health Wales and others to ensure clarity on the latest position in Wales. Daily situation reports were provided to the Welsh Government COVID-19 coordination centre and Ministers, with weekly meetings held with the Minister to update on any live issues, risks and their mitigation. Daily Local Authority Leaders' meetings with representatives from all 22 local authorities, which Ministers often attended, allowing issues to be escalated quickly on a political basis. Welsh Waste COVID Response Task and Finish Subgroups were established to focus on specific issues, with Welsh Government, Local Authorities, NRW and others working in partnership to resolve the issues linking into the regular CSS and broader COVID Response Group.

There was no WRAP NI representation on the Northern Ireland Strategic Waste Group, unlike the other three UK countries where WRAP, WRAP Cymru and Zero Waste Scotland were included to improve understanding of both the internal and external communications requirements to support service prioritisation and delivery.

It was also highlighted that third sector reuse organisations were not included in any of the cross-sectoral forums. As these organisations were not included in the key worker status and charity shops were non-essential retail and closed as part of the UK-wide lockdown, the inter-relationship between third sector reuse organisations and the core resources and waste sector was missed to some extent in the early stages of the pandemic. However, as the challenges faced by this part of the sector were recognised, engagement and support measures were taken and feedback from and communications to the third sector were also independently gathered, developed and disseminated by various sector bodies.

> *The key thing for me was the weekly meeting... [which] was a really good mechanism to identify emerging issues before they became a problem. We were able to gather intelligence... [and] identify two or three authorities [that] were having an issue... That was a really good thing.*

The frequency of the stakeholder COVID-19 contingency meetings organised in each UK country was initially weekly and has subsequently varied in frequency in response to sector need as the pandemic has progressed. There has also been liaison with specific parts of the resources and waste sector where particular disruption became evident, including textiles and WEEE recycling.

One of the immediate contingency planning challenges for the local authority sector focussed on co-ordinating responses across multiple local authorities and between the various departments/teams within each individual authority; this response was co-ordinated by the LGA, NILGA, COSLA, and WLGA respectively. Participants mentioned other more regional mechanisms that were put in place, for example in London there was a quick emergency planning response co-ordinated by London Environment Directors' Network (LEDnet) which brought together councils, the Greater London Authority, and the waste disposal authorities to help ensure essential services were maintained.

The resources and waste sector's ability to co-ordinate a response to the pandemic, and build immediate sector resilience, was in some cases helped by contingency planning measures already in place to deal with a range of issues throughout a normal year, for example bad weather or flu epidemics during the winter months, and Brexit planning on supply chain and disruption issues. One of the local authority sector Welsh workshop participants shed light on the intersections of COVID-19 and Brexit in Wales:

> *We were also fortunate that each local authority had a Brexit co-ordinator. Their role was to act as a conduit for all the information around Brexit and disseminate it within the authority using the appropriate channels. We did use those Brexit co-ordinators to deal with the COVID issue.*

Consumer Facing Communications

In England, Northern Ireland and Wales, WRAP developed multi-channel consumer facing communications campaigns, supported by a range of activities to share information, knowledge and adapt resources to support local authorities. These included practitioners' workshops and the co-ordination of communications to help develop consistent public health & safety advice and service delivery information.

All campaigns were broadly similar in terms of the communication collateral used to engage the public, and the messages they focussed on. These included generic and non-specific information on how to reduce waste; manage waste and recycling at home; reinforcement of littering and fly-tipping messaging; correct disposal of PPE; and what to expect when HWRCs reopened. For specific information on the variations in service delivery at the individual local authority level, the campaigns signposted the public to visit individual council websites to find out what, and how, services were being delivered locally.

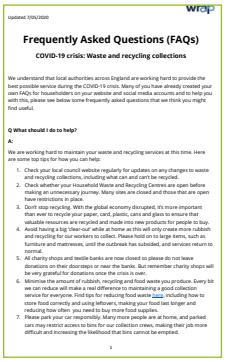
In addition, in Wales, as part of the existing Be Mighty, Recycle campaign[1], there was an opportunity for local authorities to feature their own workforces on the side of collection vehicles as a mechanism to recognise the contribution the sector was making during COVID-19.

In Scotland, Zero Waste Scotland were asked by the Scottish Government to develop a multi-channel consumer focused communications campaign. The nationwide Managing Our Waste Campaign[2] was led by Zero Waste Scotland in partnership with Scottish Government, SEPA and COSLA with the initial aim of advising householders of changes to waste services, where to find up to date information and how to effectively manage household waste and recycling following the introduction of COVID-19 related service changes. The campaign has continued to evolve as the pandemic progressed and was flexible enough to adapt and introduce additional messaging to address emerging issues, for example increased littering and the reopening of HWRCs.

The existing relationships between the UK countries and WRAP in England, Northern Ireland and Wales, and with Zero Waste Scotland in Scotland, enabled a quick response in the development of effective communications.

In England, ESA also led on the drafting and publication of a cross-sector Open Letter[3] from the sector to the public, urging people to follow government advice about how those who were unwell in self-isolation should manage their household waste. The letter was signed by major private sector waste companies, local authority bodies, CIWM and other sector organisations.

[1] https://walesrecycles.org.uk/be-mighty-recycle
[2] https://wasteless.zerowastescotland.org.uk/topics/coronavirus
[3] http://www.esauk.org/application/files/1515/8987/5368/STATEMENT_Waste_sector_to_public_UPDATE_12052020_Final.pdf

UK Countries - Communications		
England	WRAP developed a range of social media assets to help support local authorities to communicate key messages to the public during the COVID-19 crisis. Recycle Now also set up a COVID-19 advice page to which local authorities could direct the public. All of the assets were based on advice that Recycle Now was given relating to COVID-19. The assets could not be adapted due to their formatting, however local authorities were able to include their own 'localised' copy in the supporting sections of their social media posts. Assets included: digital banners, animations, social media posts, crisis local authority waste and recycling collections FAQs, and posters for both public health messaging and service delivery.	
Northern Ireland	WRAP NI developed a range of social media and communication assets to support local authorities to communicate key messages to the public during the COVID-19 crisis. All assets were based on advice that Recycle Now NI was given relating to COVID-19, and two versions were produced using the 'Northern Ireland Recycles' and 'Recycle' branding. Assets included: an advice A5 leaflet for all NI households, banners, press releases, radio adverts, email banners, FAQs for local authorities, an advice A4 large print leaflet, animated and static social media assets on Facebook and Instagram, HWRC site entrance signage, and HWRC onsite posters. In Northern Ireland, the majority of households also received a leaflet which included information on how to manage waste & recycling, fly-tipping messaging, and a request to respect collection crews and council staff during the pandemic.	
Scotland	Zero Waste Scotland developed a range of communications assets to help support local authorities to communicate key messages to the public during the COVID-19 crisis. Assets included: a dedicated online information hub, a communications toolkit, radio adverts, national and local media adverts, press releases, FAQs for key spokespeople, a local authority newsletter and contact table, web buttons, animations, and social media images for Facebook, Twitter, and Instagram. Since the initial phase on Managing our Waste ended, two subsequent campaigns tackling litter coinciding with Scottish tourism reopening (Scotland is Stunning – Let's Keep it that Way) and addressing the specific issue of littered single-use face coverings (Reuse Beats Single Use) have been rolled out.	
Wales	WRAP Cymru developed a range of social media and communication assets to support local authorities to communicate key messages to the public during the COVID-19 crisis. All of the assets were based on advice Wales Recycles was given relating to COVID-19. Assets on both public health and service delivery were developed in English and the Welsh language including: template artwork and messaging for the reopening of HWRCs, social media posts, digital banners, crisis local authority waste & recycling collections FAQs, and a series of animations to support local authority digital messaging around waste and recycling during COVID-19.	

Industry Communications

In Scotland, as part of the Managing Our Waste Campaign, SEPA developed a "Stay Compliant, Protect the Environment" campaign targeting the private sector. This campaign recognised how the sector had risen to the challenges of COVID-19; reinforced the legal responsibilities to recycle and manage waste properly; and highlighted how to report suspicious behaviour. Assets included: animations; a Managing Waste During COVID-19: Advice for Waste Managers Leaflet; and a SEPA dedicated waste hub which included information on up to date guidance on a range of topics including support for businesses, environmental regulations, temporary regulatory positions, and health and safety.

In conjunction with members, ESA produced a risk register of threats facing the sector which were regularly shared with Government and regulators and those in the devolved administrations, to address and mitigate each of these risks.

COVID-19 scenario planning and communications commenced early and continued throughout the pandemic as part of the cross-sectoral working groups within each of the UK countries, and at a regional, local, and individual organisation basis. This collaborative approach, and sharing of information across the sector, helped to build confidence, highlight priorities, and maintain service delivery. One example of this was CIWM's weekly COVID-19 briefing, issued from March to June with information across a range of headings including policy updates, business support measures, health and safety, regulation, procurement. These briefings and other COVID-19 updates were made fully accessible to the whole sector during this period rather than restricted to CIWM Members.

3.1.1.2 Service Delivery

Clarification of Key Worker Status

Clarification of key worker status for the sector was of immediate concern. A number of industry organisations including CIWM[4] and ESA[5] made formal representations to UK governments to ensure that waste collection and treatment workers were included on the list of essential key workers and that the waste management sector was classed as essential infrastructure. Although initially unclear, the key worker guidance in England, Northern Ireland, and Wales, once published, did explicitly reference the waste sector. In Scotland, although the sector was not explicitly named within the guidance, assurances of key worker status were provided by the Scottish Government and communicated via the Waste Sector Forum and its associated communication networks.

This meant that frontline waste management workers were exempt from the essential travel restrictions, had access to school places and over time had priority access to testing as the testing programmes were rolled out by governments across the UK.

Guidance

The initial lockdown announcement in March created immediate operational and health & safety concerns and challenges, prompting calls for clarity on a range of issues including:

- the correct use of PPE;
- social/physical distancing requirements including the number of operatives who could work safely in a cab;
- the use of polycarbonate screens in vehicles;
- virus survival and transmission within the workplace;
- handling of potentially COVID-19 contaminated waste;
- the risk of employee liability claims; and
- questions regarding culpability for corporate manslaughter if a member of the public or staff contracted COVID-19 at HWRCs.

With limited understanding of the COVID-19 virus at this stage, waste sector managers and operational staff were having to make individual judgements to maintain and prioritise services, manage risk and keep staff safe. One of the private sector Northern Ireland interviewees explained the complexity of decision-making:

> *"As a business, we were poking about in the dark from a health and safety point of view coming up with a safe system of work for an employee facing an invisible risk and a risk even researchers and scientists didn't fully grasp and probably still don't fully grasp."*

The quick issuing of the WISH guidance was welcomed and used by all parts of the sector, across all four UK countries, with WESA and ESA involved in helping to develop the guidance. This is explored in more detail in the WISH Forum section of this report. In Scotland, the guidance was deemed to be sufficient to support the safe delivery of ongoing operations, services, and service restarts across the sector, negating the requirement for separate Scottish Government operational guidance. In Northern Ireland, the WISH guidance, the WISH NI Forum, and the Irish Waste Management Association in the Republic of Ireland, all helped to inform the operational responses being implemented.

Policy Variations

While acknowledging that waste is a devolved matter, participants did highlight that variations in policy and guidance across the UK countries also created some challenges. The WISH Forum was useful to distil and highlight these differences, and although early versions of the WISH guidance only referenced policy variations, details of these were provided in later versions. Service delivery was also prioritised slightly

[4] https://www.ciwm.co.uk/ciwm/news/2020/ciwm_presses_importance_of_waste_sector_amid_covid19_crisis.aspx
[5] http://www.esauk.org/application/files/7315/8462/7315/ESA_Press_release_COVID19_Gov.pdf

differently across the UK, with one participant working for the Welsh Government explaining:

> *If you want an example of that, consideration of the issue of food waste between Wales and the UK government for England was slightly different because we have universal household food waste collection.*

For some of the larger private sector members who operate across the UK, policy and guidance differences between the UK countries also caused transboundary operational issues. A private sector Welsh workshop participant explained:

> *If a truck was coming from England to service North Wales or the other way from Central Wales to service the Severn Valley, there was some real confusion. It was manageable... but we have to understand that the borders are not hard and fast. Some consideration has to be given to those issues.*

There were also significant difference in how guidance was interpreted at the local authority level due to a combination of different geographies, rates of infection, restrictions, operations, and union and political views. These variations had an impact on the co-ordination of some responses at the national, regional and local levels and were of particular concern for the unions with regard to maintaining the health and safety of the workforce. Discussions between unions, local authorities and the private waste sector took place in a number of fora, and key issues included the number of operatives who could safely work in a collection vehicle, the use of polycarbonate screens in vehicles, how to run convoy systems, how bulky waste services could be reintroduced, and how to safely reopen HWRCs. One of the workshop participants working for the local authority sector explained the tensions in guidance interpretation:

> *The guidance was there, but there was a degree of interpretation required. Certainly we tried to talk that through and ensure that we were taking a common approach, but there were many discussions with the unions around that interpretation and the fact that different authorities were doing slightly different things and places.*

In Northern Ireland, the introduction of polycarbonate screens in some local authorities was as a direct result of union intervention.

Although the role of the unions and their influence varied by local authority area, negotiations at the national level between the local government associations and unions in each of the UK countries were very important for maintaining ongoing service delivery and the reopening of HWRCs.

The Regulators

Clarity from the environmental regulators in each UK country on various operational and compliance issues raised by COVID-19, and the issuing of regulatory positions, was critical

Wales' *Be Mighty, Recycle* Campaign

UK Countries - Regulatory Position Statements	
England	The Environment Agency produced Regulatory Position Statements in response to COVID-19 for: waste storage limits; storing waste at unpermitted sites; temporary storage of incinerator bottom ash aggregate; social distancing and waste transfer and consignment notes; PPE waste from home healthcare workers; cleansing and PPE waste at a healthcare waste management facility; radioactive waste; permit limits for medical use of radioactive substances; and monitoring emissions from some environmental permitting activities. Regulatory Position Statements and easements were communicated directly to stakeholder groups such as trade associations, and were also published on a dedicated section of the gov.uk website. From early in UK-wide lockdown, the Environment Agency sent a number of updates on its regulatory response to coronavirus directly to regulated stakeholders, setting out priorities, expectations, the approach to enforcement during the coronavirus outbreak and information on COVID-19 regulatory position statements.
Northern Ireland	DAERA and the NIEA produced Temporary COVID-19 Waste Regulatory Positions for: waste shipments to and from Northern Ireland; temporary variation of licence/permit conditions; waste storage; operator competence; and movements of hazardous waste. The NIEA set up a weekly forum to identify any emerging issues and support the sector through the pandemic.
Scotland	SEPA produced a broad Temporary Regulatory Guidance Response to COVID-19 for: recycling services, general arrangements at authorised waste management facilities, duty of care and transfer notes, hazardous waste and special waste consignment notes (SWCN), Transfrontier Shipment of Waste (TFS), and general considerations. If operators had a specific compliance issue, they were encouraged to contact SEPA to discuss a temporary regulatory position statement.
Wales	NRW, within the cross-sectoral meetings, provided clarity on the approach the regulator was going to take prior to regulatory statements being issued. NRW produced Temporary Regulatory Guidance Responses to COVID-19 for: signing waste documentation including trans-frontier shipment documents and waste transfer notes; continuing technical competence for site attendance; gaining Environmental Permitting Officer Certificate (EPOC); and provision of evidence for CMS under EU Skills.

for maintaining operations. There was some variation in the speed with which regulators responded in the early weeks after the first lockdown restrictions were put in place but overall, participants noted and welcomed the flexible approach taken across the four UK countries to address specific sector needs.

Contingency planning in Northern Ireland was carried out with support from DAERA and the NIEA. This identified the planning, permitting, and regulatory support needed for the storage, transfer, reprocessing and export of waste for some public and private sector companies. The NIEA set up a weekly forum, which was reported to have worked effectively to identify any emerging issues and support the sector through the pandemic. One of the private sector interviewees in Northern Ireland was generally positive about the regulatory response, stating:

> *"There has been a great template set up there for the Environment Agency to add more value in the supply chain rather than being an us and them."*

In England, regulatory prioritisation initially focussed on the healthcare waste sector, resulting in regulatory support for other parts of the sector coming later but still in time for use. For example, all but one of the RPS easements were published before they were needed. To enable stakeholders to prepare and act quickly, the Environment Agency initially shared their preliminary thinking on Regulatory Position Statements and easements at the cross-sectoral meetings prior to publication. However, due to reported inappropriate uses of this information, this approach could not be sustained and moving forward, information was only shared once it had been agreed internally and published. This underlines the need for sector stakeholders to understand their responsibilities when engaging with governments and government agencies in live contingency planning situations and the importance of setting out and working to common, agreed priorities and protocols in the future.

In each of the UK countries, the pressures on environmental regulators were recognised with regard to their wider role as Category 1 responders under the Civil Contingencies Act, the support they provided to the wider Government response, the redeployment of staff to deal with the most critical COVID-19-related issues and high staff absence rates in some areas.

Depending on UK country, the main concerns expressed by participants were about reductions in the number of site visits and inspections being undertaken and increased delays in permitting operations. The latter were particularly identified as a potential constraining factor in the context of the role of the

sector in supporting a near term 'green recovery'. To mitigate this, the EA in England provided a fast track option for permit applications that were flagged to them as being important to green recovery; take up of this option was limited however.

Local Authority Sector

The key challenges faced by the local authority sector were prioritising and maintaining frontline waste and recycling service delivery; ensuring workforce health and safety; maintaining staffing levels; and managing the impact of HWRC closures and then their reopening.

Within each UK country non-statutory, temporary guidance was issued to assist local authorities and other waste collectors to prioritise their waste collection services.

There were varying levels of disruption to waste and recycling services across and within the UK countries. With the focus being on supporting the delivery of core residual and recycling services at the kerbside, the main impact was on garden waste and bulky waste collections and from the closure of HWRCs. Disruption to some kerbside recycling services was reported across the four UK counties but this varied from one local authority to another.

As would be expected given the relatively small number of local authorities, direct central government monitoring and support was more evident in Wales, Scotland and Northern Ireland than in England, with Northern Ireland in particular acting quickly through DAERA to work with the councils and identify that all services could continue apart from HWRCs.

Maintaining kerbside provision was also put under growing pressure as waste arisings from households increased due to home working and schooling, and changes in waste composition and contamination levels emerged as the pandemic progressed. Factors which may have affected this include:

- temporary suspension of services due to staffing shortages (for instance merging residual and recycling) which changed public behaviour and increased contamination;
- increased contamination as a result of HWRCs being closed; and
- variations in household food waste arisings.

One of the Scottish workshop participants explained:

> *"Now, local authorities are finding that all streams are highly contaminated, and they're looking to us to help them with that contamination message, so I think that's quite critical."*

Although most HWRCs closed across the UK very early in the first UK lockdown due to staffing pressures and concerns about social distancing and travel, there was considerable discussion about the disruption to this part of the service, especially as garden waste and bulky waste collections were also broadly suspended. With people spending far more time at home, DIY projects and Spring clear-outs were common, but local authorities felt unable to reopen sites due to a number of factors including redeployment of staff from HWRCs to support frontline kerbside collections and concern that the early COVID-19 legislation on essential travel was not clear enough on whether or not travelling to an HWRC could be classed as an essential journey. Evidence of increased fly-tipping in some areas, while not always captured in terms of hard data, led to public and political pressures to reopen these facilities.

Considerable work was put into moving to a position where this was possible, with Defra publishing guidance for English local authorities about reopening HWRCs safely and by the National Association of Waste Disposal Officers (NAWDO) producing guidance with local authority network groups to operationalise that, including consideration of a range of methods to ensure appropriate social distancing and safe traffic management. These discussions and measures to work collaboratively to re-open HWRCs were reported across all four UK country workshops.

Image courtesy of SUEZ

Image courtesy of FCC Environment

Ultimately, the approach to reopening HWRCs varied across the UK countries and between individual local authorities, linked to different COVID -19 pressures including local infection and staff absence rates. In Wales, there was a co-ordinated response, with all 22 local authorities reopening in the same week. This also enabled a co-ordinated communications response at the national, regional and local level which improved public understanding of what was expected when using these facilities.

In Scotland, there was also a co-ordinated response, with all 32 local authorities reopening HWRCs in the same week. This was considered successful due to the strategic and co-operative approach taken to both operational delivery and centrally co-ordinated communications support. It was felt that this issue also particularly benefited from creation of a specific sub-group to focus on reopening HWRCs and enable a co-ordinated response.

In Northern Ireland, Northern Ireland's First Minster Arlene Foster made the announcement on 14th May that HWRCs in the country could reopen from Monday 18 May, that they could be open to the public and that the disposal of household waste at those sites would be added to the list of what constitutes an appropriate reason for travel. Re-opening was staggered however, and some sites remained closed for a longer period than others.

UK Countries - Prioritisation of Services	
England	Services were categorised as high, medium or low priority and information on the appropriate action, risks and mitigation were included. High priority - most important and should continue as normal: residual, food waste, fly-tipping clearance, care homes, clinical waste from households, and assisted collections. Medium priority - some disruption but the impacts won't be as severe as the high priority services being suspended: dry recyclables (fortnightly), HWRCs, bring sites, and trade waste collections. Low priority – minimal or no impact or disruption if these services are suspended: dry recyclables (weekly), garden waste, bring sites, bulky items, and deliveries of replacement containers.
Northern Ireland	DAERA did not publish a prioritisation of services document. They worked with the councils and quickly identified that all services could continue to operate, with the exception of HWRCs. DAERA published a separate document on the principles and guidance for the safe operation of HWRCs .
Scotland	Joint Scottish Government and COSLA guidance for local authorities on the considerations involved in reopening and operating HWRCs in the context of COVID-19 was produced . This included an annex on waste service prioritisation: Residual waste - A reasonable frequency of residual waste collections should be maintained at all times. Other statutory collections and services - No specific order of priority within statutory recyclable material collections was specified, to be considered at the local level. Non-statutory collections/services - Local authorities have greater flexibility to alter arrangements for non-statutory collections and services. Where possible Local authorities should make all reasonable efforts to maintain or reinstate services and effectively communicate any changes or alternative storage or disposal instructions. There was a recognition that although priority issues were discussed at the cross-sectoral forums, the issuing of official government guidance in relation to prioritisation of services and HWRC reopening could have been quicker.
Wales	Services were categorised as high, medium/high, medium, medium/low, or low priority and information on the appropriate risks and mitigation were included. A lower prioritisation identified those services that should first be considered for a reduced or temporary pausing of the service. This reflects a number of considerations, including the impacts of COVID-19 restrictions on the public, the feasibility of reducing the service, the health and environmental risks and the wider implications, for example to national infrastructure. High priority: food waste, clinical waste from households, assisted collections, care homes, clinical waste, hazardous waste, construction hazardous waste, AHP/sanitary waste (commercial collections) and residual waste with high food waste (commercial). Medium/high priority: nappies/AHP collections (household), residual refuse collection and dog excrement bins. Medium priority: dry recyclables (weekly or fortnightly), garden waste, bring sites, litter bins, fly-tipping clearance, gully emptying and residual waste with low food waste (commercial). Medium/low priority: street cleansing and road sweepings. Low priority: bulky items, HWRCs and construction non-hazardous waste.

Private Sector

There was a wide variety of impacts on the private waste and recycling sector as the pandemic progressed, linked to lockdown restrictions, the closing of parts of the economy, and measures needed to maintain kerbside collection service contracts. Pressures experienced included loss of business, feedstock disruption, staff absence levels and redeployment, and significant levels of furloughing in some parts of the sector.

Organics

In the organics sector there was supply chain and reprocessing disruption resulting from a reduction in commercial food waste collections and, conversely food surpluses due to retail and hospitality supply chain disruptions. Another challenge was the variability in the operation of garden waste collection services by local authorities Collaborative working between REA and other associations including the Anaerobic Digestion and Bioresources Association (ADBA) helped to mitigate some of these impacts and ensure that any temporary disruptions did not become more permanent.

Commercial & Industrial Waste Collections

There were significant reductions in C&I waste collections, with reports ranging between a 60 to 80% reduction on the previous year's activities across the SME sector in some areas[6]. Aligned to this was the logistical challenge of rerouting commercial collection services to minimise the financial impacts due to the reduction in the number of customers and collections, especially in rural and remote areas. This was less of a challenge to the local authority sector due to their largely pre-defined and fixed client base. These reductions also had significant impacts on staffing levels, with many workers being placed on furlough during the initial national lockdown in March 2020, with the associated risk of SMEs temporarily closing their operations resulting in significant impacts on the wider supply chain. One of the English workshop participants working within the private sector, pointed to the complexity of the sector's supply chains:

> *"Making members realise and understand their value and importance was one of our big challenges at the beginning so that you didn't have this domino effect of small businesses shutting down across the sector."*

Some parts of the skip hire sector did experience increased orders, due to the increase in the numbers of people staying at home undertaking DIY projects and clear-outs at the same time as HWRCs were closed and bulky waste services were being reduced or suspended.

Reprocessors

The key challenges faced by the reprocessing sector included increased demand for PPE, supply chain weaknesses for critical equipment due to plants running longer shifts, and access to technical specialists from other parts of the UK and abroad.

There was also increased tonnages from local authority collections and changes in material composition.

Funding Support

In Scotland, various mechanisms were readily available and accessible to support the commercial sector. The Scottish Government created an online central resource to make business support services visible and available from a single site, and the £1 million Zero Waste Scotland COVID-19 Site Adaptation Fund awarded grants of up to £10,000 for non-statutory onsite infrastructure adaptations aimed at preventing the further spread of COVID-19.

In England, Northern Ireland and Wales, there was no specific additional business sector support from central government. However, in England, WRAP refocused their Textiles Grant Fund to provide additional support to private waste companies.

Across the UK, the WEEE Support Grants and Loans package provided a total of £5 million interest free loans to electrical waste treatment facilities and £0.6 million in grants to charity reuse organisations. The funds were supplied by the WEEE Fund, which was set up by the Joint Trade Association (JTA) to administer how money is collected and spent through the WEEE Compliance Fee mechanism.

Third Sector

There were a range of significant impacts on the waste and recycling third sector as the pandemic progressed. Reuse and charity shops did not have key worker status and were categorised as part of the non-essential retail sector. There were subsequent increases in the volumes of donations after the first UK lockdown. Some operators did not have the capacity to manage this, both in terms of storage and staffing resources.

Textile markets were highly disrupted

[6] RMAS RAG report submitted to Scottish Government on a regular basis.

In addition, many volunteers in the charity sector were shielding, resulting in insufficient staff and volunteers to keep shops open. Third sector organisations furloughed staff and closed shops to survive financially. One of the third sector Scottish workshop participants explained:

> *A lot of the people that volunteer in the charitable sector are from a demographic where they needed to shield, so as with other organisations, the only way of surviving financially was to furlough a significant number of their staff, other staff were also working from home. So, the impact of this on logistics and capacity and how to respond to for example to increasing donations; if you've got less people and more material, that is a challenge.*

In addition, during the first UK lockdown in March, many of the reuse supply chain pathways closed overnight. The most significant example is the nationwide closure of HWRCs. This created immediate downstream challenges for the third sector, and combined with the impacts on WEEE, wood and organics supply chains, may have had an influence on the decision by the Government in England to confirm that HWRCs could remain open.

Funding Support

The UK government pledged £750 million to ensure VCSE (for voluntary, community and social enterprises) to continue their vital work[7].

Across the UK, the WEEE Support Grants and Loans package also provided £0.6 million in grants to charity reuse organisations.

In Scotland, initial support provided by CRNS focussed on providing information to third sector organisations about how to survive financially, with later support focussing on the safe reopening of premises. This involved collating, condensing and disseminating relevant guidance and information from a wide variety of sources. One of the third sector participants in the Scottish workshop explained the different priorities:

> *Early on, third sector organisations were focusing on how to survive financially, but later on this very much shifted to how to reopen safely, and so we had a signposting role for our sector to collate Revolve guidance, Scottish Government guidance, WISH and SWITCH guidance, and summarise that.*

In Scotland, various funds were available to support the third sector, including: the Scottish Government's Third Sector Resilience Fund (TSRF) for charities; community groups; social enterprises and voluntary organisations; and adaptation grant support from Zero Waste Scotland to support safe reopening and working practices.

In Wales, the Welsh Government launched a Third Sector Resilience Fund to provide support for voluntary organisations during the COVID-19 pandemic.

3.1.1.3 Staffing and Resources

Staffing Levels

From the start of the UK-wide lockdown in March, decreases in staffing levels were primarily due to people shielding and self-isolating. Within both the private and the local authority sector, the ability to share staff across departments and contracts helped to mitigate the impacts and maintain service delivery. Key examples of this in local authorities included LGV drivers from Roads departments trained to operate collection vehicles, and staff from street cleansing teams and closed HWRCs redeployed to support collection services. One of the negative effects of this staff redeployment, however, was the impacts on other parts of service delivery, in particular local environmental quality operations. In addition to staff shortages and redeployment, staffing pressures also arose due to the new physical/social distancing rules, resulting in an increased number of staff required for collection activities. One of the local authority Welsh workshop attendees discussed redeployment in the context of vehicular transport:

> *Particularly critical because a majority of authorities introduced the convoy system so very often it required another individual to drive the backup vehicle and that vehicle typically had to be a street cleansing vehicle that was being used initially. Now authorities are having to hire vehicles to do that and often use agency staff to drive those vehicles.*

Sharing Platforms

Opportunities to share staff and resources both within the local authority sector and between the local authority and private sectors were considered relatively early on in the first UK-wide lockdown across all the UK countries. To facilitate this sharing, various online platforms were developed during April 2020.

[7] https://www.gov.uk/guidance/financial-support-for-voluntary-community-and-social-enterprise-vcse-organisations-to-respond-to-coronavirus-covid-19

UK Countries - Sharing Platforms	
England	CIWM developed WasteSupport, in partnership with WRAP and other leading public and private sector organisations. This was a free 'virtual marketplace' for local authorities and licenced/permitted commercial waste companies. It was intended to enable local authorities facing resource challenges to indicate where they needed service capacity support, as well as other requirements such as PPE or vehicle maintenance engineers. Commercial waste collection firms with surplus capacity were also able to use the platform to indicate those services they were able to provide. Although there was initial cross-sectoral support for this platform, it was ultimately not used.
Northern Ireland	CIWM WasteSupport platform available but not adopted for use. Council Volunteer Driver/Mechanic Relief Scheme - The SIB worked with the haulage sector and various industry bodies (Freight Transport Association, Mineral Products Association, The Chartered Institute of Logistics and Transport) to develop a driver/mechanic volunteer scheme for furloughed drivers to be made available to support Councils to ensure essential householder waste collections were maintained.
Scotland	CIWM WasteSupport platform available. Scotland Waste Capacity Platform - Zero Waste Scotland developed the Scotland Waste Capacity Platform to support local authorities to help direct resources where they were needed, and could also be used by commercial waste companies to indicate those services they were able to provide. Specifically, the platform sought to enable waste companies with redundant or spare equipment, surplus and furloughed staff, and other resources, available to sites who needed them. Although there was initial cross-sectoral support for this platform, it was ultimately not used.
Wales	CIWM WasteSupport platform available but not adopted for use.

The adoption and use of these platforms was limited across the UK – despite initial cross-sectoral support. A variety of factors were noted across the workshops, including the inherent resilience within local authorities to maintain essential services by redeploying staff within and between departments, and a reluctance to use external contractors due to increased operational and financial risks. Another barrier identified by some commercial sector representatives was the risk of staff seconded from the private sector choosing to remain within the local authority sector.

In Northern Ireland, despite being a well-designed platform, there was a delay in the launch of the Council Volunteer Driver/Mechanic Relief Scheme, and this delay may have impacted on the uptake of the scheme.

Although the platforms were not used for staff sharing, there is evidence that some redeployment occurred where there were productive existing relationships between local authorities and private sector waste companies.

Workshop participants across all UK countries argued that the platforms could have potentially been used to respond to 'worst case scenario' levels of COVID-19 transmission, and were therefore useful platforms for future preparedness. Consideration could be given to explore why these platforms were not used, and consider how platforms could best share services, staff, and equipment to help balance impacts across the sector in the future.

Testing Programmes

As UK government rolled out testing programmes, workshop participants highlighted that there was concern across the resources and waste sector that a rise in people self-isolating as a result of coming into contact with someone testing positive could result in significant increases in staff absence levels and constrain the sector's ability to maintain service delivery and operations.

There was also concern that local tracing partnerships (where local authorities have worked in partnership with the NHS testing programmes across the UK) may not always understand the mitigation measures already implemented within the waste management workplace to protect staff, which might negate the need for a whole team to self-isolate. In addition, although risk assessments and control measures can be implemented within the workplace, it is far more difficult to mitigate the risk of community-based exposure.

At the time of conducting the research for this report, however, no significant impact had been experienced, although in England, there have been circa three reported incidences where facilities have been forced to close due to key operational teams self-isolating and in Wales, there was one reported incident where a large number of office staff needed to self-isolate.

Remote Working

Another challenge highlighted by a number of participants was the sheer scale of the switch to home working across the sector and beyond into government departments and agencies during the first UK-wide restrictions. It was felt that a change of this scale had not broadly been considered in most contingency planning and placed significant challenges on establishing new and efficient ways of remote working which would allow departments and teams to continue to function. Workshop participants felt that this initially took time to organise and implement, but as the pandemic progressed, the sector became more efficient and effective in using a range of online communications. In some cases, however, workshop participants noted that access to and communication with planning and regulatory authorities was disrupted.

Staff Training

Communicating with the workforce was challenging due to the rapidly changing guidance and the shift from delivering information face-to-face via toolbox talks and mass depot meetings, to using online platforms. Throughout the pandemic there has been, and continues to be, an ongoing need to regularly engage with workers to reinforce the importance of the use of PPE, maintaining the social/physical distancing requirements, and other considerations to maintain health and safety.

Some workshop participants noted that consideration should be given to collate examples across the UK of staff training practice during the pandemic outbreak.

PPE

Accessibility, rapid deployment, and increasing costs of PPE all posed challenges for the sector. To mitigate this some UK governments undertook procurement support mechanisms (see table below.)

Initial concerns over shortfalls in availability led to some companies stockpiling these resources. One of the private sector Northern Ireland interviewees expressed this significant concern:

> *"We were worried that we didn't have stocks that would carry us through because we didn't know when there would have been availability again."*

Although mechanisms detailed were set up to support shortages of PPE, these were rarely required. However, workshop participants claimed that these could have been needed if worst case scenario levels of transmission had been reached. Their development was recognised as useful for broader preparedness planning.

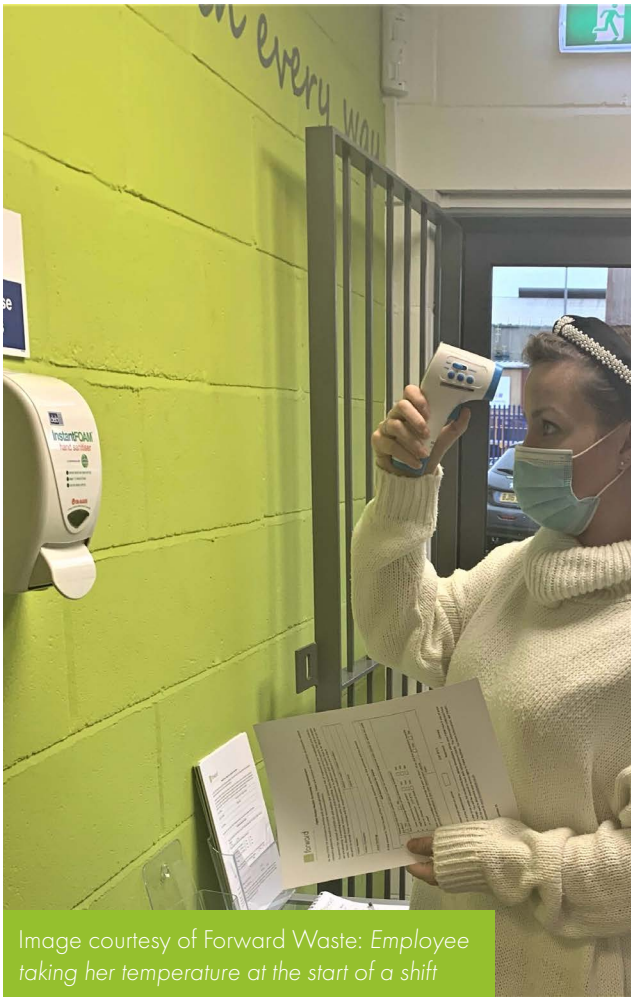


Image courtesy of Forward Waste: *Employee taking her temperature at the start of a shift*

UK Countries - PPE	
England	The Cabinet Office led on planning for critical supply pathways and worked with PPE suppliers to ensure critical sectors had access to PPE suppliers and could bulk purchase if needed.
Northern Ireland	PPE was sourced on an individual company basis.
Scotland	The Scottish Government set up a third party supplier contract for operators to use when PPE was not available via their local supply chains.
Wales	PPE was sourced on an individual company basis.

3.1.1.4 Data

Although data on the impacts of COVID-19 on workers and service delivery were collated in each of the four UK countries, there was no standardised method of collection across the UK. Within individual countries different stakeholders were responsible for collating the information which helped to identify the critical pathways and pressure points across the sector.

UK Countries - Data	
England	Data was generated across the local government family of networks, with support from Defra, through the weekly ADEPT survey . The aim of the ongoing survey is to understand the impact on the waste sector – and its response – at a national level. It includes data on how services were prioritised and where the pinch points were located in relation to the wider supply chain and markets. The full range of data are as follows: • disruption to services for different waste streams; • disruption to reprocessing and disposal services.; • staff absentee levels; • reasons for service changes and disruptions; and • changes in waste arisings. In addition, Defra set up a fortnightly private sector survey that was disseminated by stakeholders who were present in the Defra-led COVID Contingency meetings. The survey questions varied over time but included questions on: • changes in throughput and composition at different types of site and by region for all waste and dry mixed recycling streams; • challenges in the specialist reprocessor sector - furniture, mattresses or textiles; • number of staff working in critical roles and absence rates; • availability of essential PPE supplies; • availability of adequate collection infrastructure (vehicles) to meet demand; and • most significant business risks. ESA used their network of committees - which included all member companies - also quickly set up a risk register. On a daily basis, they generated data on issues affecting the private sector. This data was reported weekly to the Defra-led COVID Contingency meetings.
Northern Ireland	The SIB developed a Waste Tracker in conjunction with the DAERA (including NIEA), local government and waste sector processors. This tracker provided a daily dashboard and emerging data trends using the RAG system to highlight areas that were under pressure across the sector to the most senior levels within both central and local government. It moved to weekly reporting as the pandemic progressed. This generated the following data from on the public sector COVID-19 impact and response: • service delivery and disruptions, including kerbside services, bulky waste, litter and street cleansing, bring sites, and HWRCs; • transfer stations; • staff and resource levels – drivers, operatives, vehicles, garages, mechanics; • PPE availability; • occurrences of anti-social behaviour and fly-tipping; • issues and action log; and • emerging trends. The Waste Tracker also generated the following data on the private sector responses: • overall operational status; • staffing levels; • sufficient waste to continue operations; • availability of markets for processed material; and • daily throughput and spare capacity.

UK Countries - Data	
Scotland	Survey data from the public sector was generated for all 32 local authorities via the Waste Managers Network using an MS Teams survey. It generated the following data: • health & safety working practices including access to and appropriate use of PPE and physical distancing; • service delivery and disruptions, including recovery planning for kerbside services, bulky waste, and HWRC reopening; • waste processing and disposal contract disruptions; • sickness absence levels and the breakdown of that percentage into normal sickness absence, self-isolation and shielding; • status of fly-tipping and enforcement; and • internal resource sharing. Data generated by the commercial sector was collected by SESA and RMAS, and included the following: • sickness absence levels; • furlough and redundancies; • % of trade waste collections and distance travelled compared to previous year; • % of skip and rollonoff hire and distance travelled compared to previous year; and • overall tonnage compared to previous year. All data were submitted to Scottish Government and reported at the COVID-19 Waste Sector Forum meetings. The frequency of reporting was initially weekly, moved to bi-weekly and is currently monthly. Additional data on disposal capacity, site closures and flytipping were compiled by SEPA.
Wales	Used the weekly COVID Response Group to review the incoming data covering changes in material supply chains and costs, Local Authority service status (HWRCs, Bulky Waste, Green Waste, etc.) and sector impacts. With WRAP, NRW, WLGA, WESA and CIWM updating at each meeting.

3.1.1.5 Economic Impacts

COVID-19 has resulted in unprecedented economic impacts right across the waste and recycling sector. In the private sector, economic consequences ranged from:

- market disruption and material price fluctuations, particularly for paper and plastics;
- changes in material flows, especially for textiles, WEEE, waste wood, biowaste streams and commercial wastes;
- increased costs associated with the implementation of social distancing measures and additional staffing demands;
- supply chain impacts (e.g. availability of specialist chemicals);
- and reductions in income from commercial waste collections due to the customer base across multiple sectors being reduced due to restriction measures.

One of the private sector Welsh workshop participants explained the significant challenges the sector is facing:

> *"Whilst the municipal collections have gone on and there have been stresses and increased volumes there, there are real economic stresses elsewhere which reflect the economic downturn in certain sectors. We collect materials from all those sectors so if those sectors are really struggling, we are feeling and sharing their pain."*

In terms of domestic markets, WEEE and wood waste reprocessors struggled as feedstock availability dropped due to the widespread closure of HWRCs. From an international market perspective, one of the most significant impacts was on textile recycling due to the export markets being closed off early in the pandemic outbreak with limited advanced notice, causing severe disruptions to the supply chain and storage issues.

For the local authority sector, home working has resulted in a significant and sustained increase in both residual waste and recycling volumes, leading to higher service delivery costs. Like the private sector, there have been increased costs associated with the implementation of social distancing measures and additional staffing demands, and higher gate fees and contractual costs have been reported in some cases, linked to higher contamination levels, recycling market price fluctuations, and tonnage restrictions at some treatment facilities. At the same time, income from local-authority-run trade waste collections dropped significantly.

WRAP provided weekly market intelligence information for the sector in England, Northern Ireland and Wales to help find appropriate outlets and buyers for recycled materials. In Scotland, the RMAS produced monthly market intelligence information to help the sector.

Overall, the extent of the economic impact on the resources and waste sector has yet to be adequately quantified. Anecdotal evidence suggests that local authority overspend on the waste services linked to COVID-19 response is likely to be significant. Some authorities are already reporting that they are 50% over budget, although these examples are likely to be at the high end of the spectrum and efforts to accurately assess this on a more accurate and comprehensive basis are underway. The effect on the private sector will not emerge until announcements are made as part of the corporate financial reporting cycle.

For the third sector, the picture is mixed. Those organisations whose funding is primarily grant-based appear to have been more resilient than those who run socially entrepreneurial business models. For example, many experienced decreases in income from one part of their service, but increases in demand from another, resulting in significant financial pressures. One of the third sector Scottish workshop participants explained:

> *"So, if they ran maybe a furniture reuse shop and a food bank, the food bank was facing more demand but the furniture reuse shop which funded the food bank didn't have any income. That was really challenging... This is a disaster. Financially, third sector organisations were really on the wire."*

Consideration needs to be given to undertaking a full economic impact assessment on the effects of COVID-19 on the waste and recycling sector.

3.1.1.6 Environmental Impacts

The immediately visible waste-related environmental impacts associated with COVID-19 that were reported included higher levels of household residual waste and dry recycling and increased contamination as well as a rise in fly-tipping and general littering. While there is no accurate data available yet on fly-tipping, and indeed some areas reported lower levels of fly-tipping, it was broadly noted that issues regarding fly-tipping on private and agricultural land during the first UK lockdown were evident. An increase in unwanted items piling up outside closed reuse and charity shops was also mentioned.

Levels of littering also varied from area to area but increased levels were reported of littering were highlighted by workshop participants. Littering was a particular issue during the Spring and Summer in beauty spots, tourist areas such as beaches, and public access and private land as people spent more time outdoors in response to the UK-wide restrictions and the subsequent lifting of those restrictions. With street cleansing staff often having been redeployed to support frontline services, responding to these incidences did put further strain on the system. One local authority sector Welsh workshop participant stated:

> *"We found coming out of lockdown litter became a significant issue and having the resources to provide all those services became a critical issue."*

UK Countries - Fly-tipping Reporting	
England	Report incidences of fly-tipping on the gov.uk website or directly on council websites. Fixmystreet.com and other organisations also provide a platform whereby they pass on relevant information to local councils. A Defra supported version of FlyMapper was launched in England in March 2020 on a pilot basis for recording fly-tipping on private land only. FlyMapper is currently used by local authorities and organisations with land management responsibilities. A version for public use will be launched later in 2020.
Northern Ireland	SIB collected fly-tipping data from councils as part of the Municipal Waste Issues Tracker. As each Council had its own process of recording incidences in terms of scale and nature/type of waste, the data provided could not be relied upon to make reliable comparisons, draw conclusions, or allocate resources. However, there was recognition that having an overview of fly-tipping across Northern Ireland would be useful, and as a result a fly-tipping app is under development by NIEA, Councils and SIB. This app will be used by NIEA and Council officers to capture the location, scale and nature of the waste, with the aim to develop this further for public use.
Scotland	Zero Waste Scotland host the Dumb Dumpers platform on their website to report fly-tipping. FlyMapper is used by local authorities across Scotland and is supported by the Scottish Government.
Wales	Fly-tipping Action Wales has an interactive map which links directly to relevant council websites to report incidences, or reports can be made directly on council websites. FlyMapper is used by local authorities across Wales and is supported by the Welsh Government.

The communications campaigns within each of the UK countries also focussed on littering and fly-tipping as the pandemic progressed. For example, in England Defra prepared some updated campaign materials to tackle littering and encourage people to respect the outdoors. These materials, include Defra's 'Respecting the outdoors' campaign materials, comprised:

- social assets for Facebook & Twitter;
- non-Government branded social asset templates (for authorities to insert their own logo instead if desired);
- poster images;
- a basic campaign toolkit, providing a campaign overview, key messages, and guidance for using the assets on social media; and
- links to Keep Britain Tidy's Love Parks campaign.

In Scotland, two subsequent campaigns were introduced which tackled litter coinciding with Scottish tourism reopening (Scotland is Stunning – Let's Keep it that Way[8]) and addressed the specific issue of littered single-use face coverings (Reuse Beats Single Use).

Another area of behaviour change that had consequences for the sector and for the wider environment was an increase in single use items and packaging, with food and drink outlets moving to disposable packaging to reduce risks of contamination and transmission. From a wider resource perspective, there were concerns about single-use PPE and official government guidance included advice on how to hand-make reusable face coverings. The management of growing volumes of PPE waste, coupled with concerns about littering of PPE and its presence in recycling streams, was also noted, and messages about correct disposal were included in communications materials developed to support local authorities.

Image courtesy of FCC Environment

Local residents and children in the **Harborough** area surprised their bin crew, employees from FCC Environment, with heartfelt messages of praise, good wishes and colourful drawings to thank them for **"keeping the country going"** in the face of COVID-19.

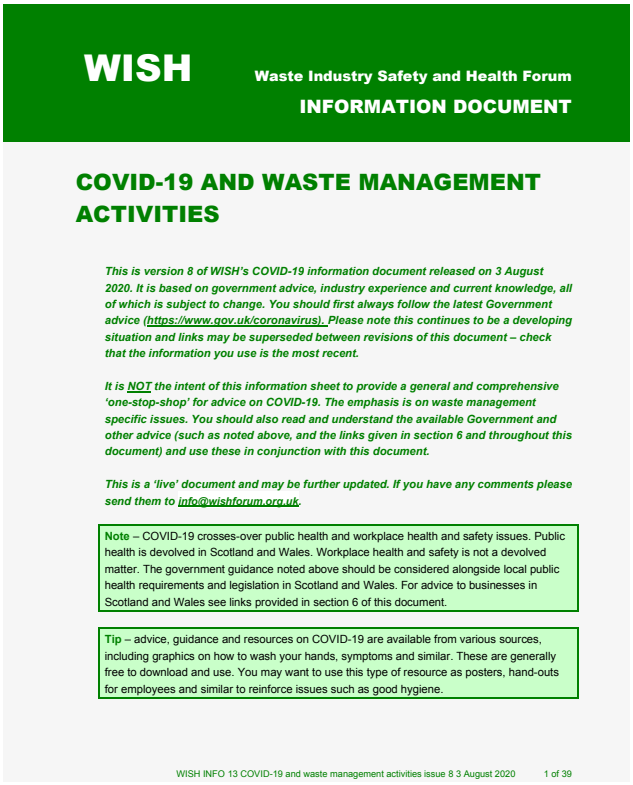
[8] Zero Waste Scotland's Scotland is Stunning won Vuelio Online Influence Award for Best Cause-Led Influence Campaign 2020

3.2 Health & Safety

3.2.1 WISH Forum

The work of the Waste Industry Safety and Health (WISH) forum has been pivotal to the sector's pandemic response. WISH includes representatives from the waste management and recycling industry HSE, trade unions, and national and local government bodies involved in waste management and recycling. Its aim is to produce good practice information and guidance developed by the sector for the sector. The WISH Forum developed good practice guidance for the pandemic response (COVID-19 and Waste Management Activities WISH Information Document). In all the workshops and interviews it became apparent that the guidance has been well received by the sector and has been largely used across the UK. It was necessary to hold specific interviews with key WISH stakeholders (see table on page 11) to fully understand their work and their experiences. Three key challenges emerged in the discussions:

- in terms of developing guidance and navigating uncertainties around how the new COVID-19 pathogen is transmitted;
- understanding the effectiveness of the guidance with a lack of comprehensive data from across the sector; and
- engaging with small and medium enterprises – which is a longstanding issue for the sector.



WISH Waste Industry Safety and Health Forum

INFORMATION DOCUMENT

COVID-19 AND WASTE MANAGEMENT ACTIVITIES

This is version 8 of WISH's COVID-19 information document released on 3 August 2020. It is based on government advice, industry experience and current knowledge, all of which is subject to change. You should first always follow the latest Government advice (https://www.gov.uk/coronavirus). Please note this continues to be a developing situation and links may be superseded between revisions of this document – check that the information you use is the most recent.

It is NOT the intent of this information sheet to provide a general and comprehensive 'one-stop-shop' for advice on COVID-19. The emphasis is on waste management specific issues. You should also read and understand the available Government and other advice (such as noted above, and the links given in section 6 and throughout this document) and use these in conjunction with this document.

This is a 'live' document and may be further updated. If you have any comments please send them to info@wishforum.org.uk.

Note – COVID-19 crosses-over public health and workplace health and safety issues. Public health is devolved in Scotland and Wales. Workplace health and safety is not a devolved matter. The government guidance noted above should be considered alongside local public health requirements and legislation in Scotland and Wales. For advice to businesses in Scotland and Wales see links provided in section 6 of this document.

Tip – advice, guidance and resources on COVID-19 are available from various sources, including graphics on how to wash your hands, symptoms and similar. These are generally free to download and use. You may want to use this type of resource as posters, hand-outs for employees and similar to reinforce issues such as good hygiene.

WISH INFO 13 COVID-19 and waste management activities issue 8 3 August 2020 1 of 39

Guidance

Defra approached the WISH Forum on the 23rd March to develop good practice information for COVID-19. This was developed based on previous work produced for various viral outbreaks – including Swine Flu, Avian Flu, and SARS and on other documents and approaches developed previously by WISH to support the sector.

WISH brought together a small group of five sector experts to collate and manage the first draft of the information. These experts were active members of the WISH Forum from the following organisations: CIWM, ESA, British Metals Recycling Association and HSE. The draft Information Document was reviewed via email by a wider range of stakeholders including representatives from Public Health England, local authorities, the private waste sector, regulators and trade associations and unions, and went through several reiterations before publication on the 2nd April of Version 1 of the COVID-19 and Waste Management Activities WISH Information Document.

Subsequently, the Information Document was revised and reissued, initially on a frequent basis as further information became available, and then less frequently as the pandemic progressed. Each version was informed by ongoing questions, information and feedback which was being received from representatives across the public and private waste sector via both formal and informal mechanisms, ensuring the guidance captured emerging learning and issues. The Information Document is currently on Version 8, published on 3rd August 2020.

WISH has been developing guidance and good practice information for over 20 years and have developed good working relationships and trust with bodies such as Public Health England and HSE who recognise that WISH produces 'good practice' guidance rather than regulatory guidance. This allowed the COVID-19 guidance to be developed quickly whilst still addressing and minimising risk.

Devolved government generated challenges both in terms of developing guidance and in the terminology being used – for example social vs. physical distancing. To ensure publication timescales were not delayed, although overall references were made to where policy variations exist across the UK countries, details of some of these variations were not provided until later versions of the guidance. One of the WISH Forum participants explained:

> *"Public health is a devolved matter. Workplace health and safety is not a devolved matter, and we spent a lot of time trying to keep those two as apart as much as we could. Now, inevitably with things like COVID, there are grey areas and there are overlaps, but trying to keep public and workplace health separate helped in managing the GB countries in terms of the approach we take."*

Securing unions' support for the guidance was one key challenge for WISH. This was mitigated both by clearly communicating the purpose and content of the Information Document and building on the existing relationships between the WISH Forum and the different union representatives. However, in some cases there was not uniform awareness of WISH and its work across all of the UK countries, with one example being the Scottish Trades Union Congress, a factor which slowed Scottish Government's endorsement of the WISH Information Document.

Managing the risk of pathogens was not new to the sector, and as such many of the measures identified for COVID-19 in terms of the health and safety of the workforce were already in place. However, there was still a lot of uncertainty and a lack of confidence around the capacities of existing health and safety practices to protect workers against COVID-19. Examples of this included whether assistance should be provided at HWRCs or how fly-tipping incidents should be responded to. In addition, key health and safety questions were raised in relation to the following issues:

- when, where and if face coverings should be worn:
- how many operatives could safely work in a vehicle and how this could be delivered; and
- bio-aerosol transmission of the virus and its survival rate on different surfaces.

There was also confusion across the sector due to the large amount of official government guidance and information being published and variations between public health and workplace guidance (a theme which emerged in each workshop). The WISH Forum Information Document sought to provide assurances and clarify misconceptions or confusions as they arose. The guidance focused on providing clear information about working practices, and provided examples of good practice which could be immediately implemented and adapted for use in the workplace.

The WISH Forum representatives indicated there have been no recent changes to the current version of the information document with regard to the ongoing immediate sector response during the second wave of COVID-19, although it was noted that due to "general fatigue" Version 9 could focus on refresher messaging for the industry to ensure continued engagement.

In addition, WISH noted some of the health and safety requirements associated with COVID-19, such as the increased need for hand washing/sanitising, may also help to improve workplace hygiene in the longer term.

Data

WISH is not formally assessing the impact of the effectiveness of the COVID-19 Information Document on preventing transmission of COVID-19 in the workplace. However, they have access to, and are monitoring, data shared by ESA which accounts for ~40% of the private sector, and from some local authorities. At the time of this report's publication, there had been very low levels of infection reported across the sector.

WISH has also sought to access workplace transmission data from English local authorities and from colleagues in Scotland and Northern Ireland, but limited data has been shared. WISH noted that as well as having limited access to local authority data, they were also unaware of any sector-wide platform by which SMEs could report transmission data - although several organisations including CIWM, Renewable Energy Association (REA), RMAS and UROC do have reach into some SMEs. One of the WISH Forum participants explained:

> *"It's not just the local authorities, it's the smaller and medium-sized companies. There's no network or process by which they can report in."*

People

In generating and managing the multiple versions of the COVID-19 guidance, members of the WISH Forum relied on a core of five experts. This approach is consistent with how the WISH Forum produces other guidance where a small group develop the initial draft and then seek review and further content from a wider audience prior to publication. This allows guidance to be developed quickly but increased the workload pressures on individuals during an exceptionally busy time.

Communications

WISH disseminated the COVID-19 Information Document through three primary mechanisms: its website, social and other media, and through its engagement with a wide range of sector stakeholders to cascade information via their own communication channels, platforms and networks. These included CIWM, ESA, HSE, WRAP, APSE, SWITCH, RMAS, Zero Waste Scotland, LARAC, the Local Authority Waste Safety Forum and letsrecycle.com. As hosts of the WISH website, CIWM's support in ensuring the swift uploading of new versions of Information Document was highlighted, as was letsrecycle.com's support in organising webinars on COVID-19 health and safety issues.

While there was wide dissemination of the WISH COVID-19 guidance through sector organisations and networks, it was noted that there are ongoing challenges with reaching SMEs and micro businesses. There were some channels out to this audience, including the United Resource Operators Consortium (UROC) and the Resource Management Association Scotland (RMAS) in Scotland, but it was felt that addressing this gap is important for future learning.

3.2.2 SWITCH Forum

The SWITCH Forum provide leadership by working collaboratively to raise standards of health and safety, training, learning and development, and technical competence and to provide an independent voice to promote the Scottish resource management industry as an attractive career choice. It comprises representatives from key stakeholders such as Scottish Government, Scottish Environment Protection Agency, Zero Waste Scotland, Health and Safety Executive, SQA, local authorities, the 3rd sector, and private companies. For this reason, an additional interview was held with key SWITCH representatives.

SWITCH was initially run by volunteers with some additional time-limited funding and administrative support provided by Zero Waste Scotland to help establish the organisation, its objectives, and its two forums: Health & Safety Forum, and Education, Training and Competency Forum.

Training and competency for frontline staff and communications emerged as key challenges for SWITCH in the interview. It was also noted that the purpose of SWITCH is not to replicate the work WISH undertakes in developing guidance but to support the awareness, dissemination, implementation and resonance at the national and local level within a Scottish context. It provides a mechanism to enhance sector uptake, dialogue and feedback, and address any Scottish specific issues, given that waste is a devolved matter and there are differences in some of the key legislation related to health and safety.

Health & Safety Communications

Prior to the emergence of the pandemic, SWITCH were not proactively engaging with the sector and were still in a planning phase for the organisation. However, COVID-19 accelerated SWITCH activities and a volunteer co-ordinator took responsibility for disseminating relevant COVID-19 information including the WISH guidance to members of SWITCH.

As the potential scale of the pandemic became clear, it was apparent there was a lot of information being published by a range of organisations using different distribution mechanisms and platforms. One of the initial activities SWITCH undertook was to share information directly with Scottish local authorities to support them to maintain essential service delivery. SWITCH tried to collate the most relevant and practical information and disseminate it across the sector. As the pandemic progressed SWITCH developed a COVID-19 page on their website which acted as an information hub. One of the SWITCH Forum participants stated:

> *"So, we were trying very much, to identify the practical things they had put in place, review them and the share them. And then gradually as COVID-19 developed, we developed a COVID-19 page where we tried to put everything all together..."*

The content for this page included the updated versions of the WISH guidance, feedback from the SWITCH Trustees who were present on the Scottish Government's COVID-19 response groups in their capacity as RMAS representatives, and mental health and wellbeing information.

Education, Training & Competency

The emergence of COVID-19 has highlighted the importance of training and competency for frontline staff. It was noted during the interview, councils in Scotland who had invested in staff training and cross-departmental working were more resilient in maintaining service delivery. One local authority prior to lockdown trained existing staff across a variety of roles – including gardeners, ground maintenance, street cleansing staff – to be able to operate as collection crews. This enabled frontline services to continue to operate. But this is not the norm – one of the SWITCH Forum participants described the challenges of re-deployment within this Scottish local authority:

> *"So, their answer to not having people in a cab was to have a pool car to follow the bin lorry, and then they discovered a whole number of staff had never passed their driving test and couldn't actually drive a car. And he was saying, "Well, that's probably something we need to put in our development plans. When we get an 18-year-old, check he's got a driving licence and try and get him to pass the test."*

It was also noted that attention needs to be paid to digital skills: for example, Team Leaders responsible for health and safety training, which is normally delivered face-to-face via toolbox talks, had little experience of using the online training platforms which emerged during the pandemic.

SWITCH has noted missed opportunities to share staffing resources between the public and private sectors. Barriers identified included:

- inconsistencies in training standards between individual authorities and companies;
- a lack of minimum competency standards;
- variation in employment pay scales; and
- issues over contract agreements.

Overall, it was felt that the pandemic should lead to greater recognition of the importance of education, training and competency to support future resilience, although it was noted that delivering this could be challenging given the likely economic impacts of COVID-19 on both the public and private sector.

3.2.3 Future Resilience

Six key health and safety recommendations were outlined by SWITCH and WISH stakeholders to support short and long term future resilience of the sector:

- **Recognition:**
  - » renewed focus on Health, Safety and Wellbeing across the sector and greater recognition and understanding of the work that WISH, SWITCH and similar bodies (e.g. WISHNI) provide.

- **Resources and funding:**
  - » attracting volunteers who have both the technical capabilities, current operational experience and the passion and drive for the sector to reduce the reliance on the current small number of willing experts; and
  - » assessing and accessing appropriate financial support including formal funding (SWITCH has secured funding from Scottish Government), ad hoc funding from the sector, and in-kind support which could include ongoing communications, marketing support and research support.

- **Relationship Building:**
  - » maintain and further develop effective working relationships between the WISH Forum and unions across the UK and build on and formalise relationships with key health and safety stakeholders and bodies to optimise resources and avoid duplication of effort.

- **Data:**
  - » analysis to measure the uptake and effectiveness of WISH good practice on reducing workplace transmission during the COVID-19 pandemic;
  - » mechanisms to capture reliable data on sickness absence directly related to COVID-19 across the sector; and
  - » potential research to more fully understand the bio-aerosol transmission and survival of COVID-19 within the workplace.

- **Engagement:**
  - » improved engagement with the wider SME waste sector.

- **Skills:**
  - » development of competency frameworks to enable greater flexibility within the workforce and support resource-lean organisations to be more multi-functional, whilst ensuring that individuals, organisations and customers are protected; and
  - » addressing specific training gaps, e.g. digital skills as the sector becomes more digitised and reliant on technology to enhance and improve service delivery and health and safety.

Image courtesy of SUEZ

3.3 Healthcare Waste

Healthcare waste professionals across the UK have worked extremely hard under difficult circumstances to respond to the COVID-19 pandemic, maintaining healthcare waste collection, treatment and disposal services. Key challenges that emerged in the healthcare waste workshop (discussed below) were: unsustainable increases in workload for professionals maintaining healthcare waste management right across the supply chain; persistent misclassification and mis-segregation of healthcare waste despite rapidly developed and disseminated guidance; uncertainties and gaps in data; and pressures on the healthcare waste infrastructure.

Guidance

One of the immediate challenges faced by the NHS healthcare waste professionals was the classification associated with COVID-19 as this new viral pathogen emerged. Initial guidance from the Health & Safety Executive (HSE) and the Scientific Advisory Group for Emergencies (SAGE) indicated the virus should be a Category A disease, which would have resulted in significant impacts on how the waste was managed and transported. However, following joint working led by NHS England with Public Health England, HSE, SAGE and the Department of Transport, COVID-19 was classified as a Category B disease, similar to SARS and MERS.

Information and guidance emerged quickly and a central co-ordination function was established by NHS England and NHS Improvement (NHSI) to oversee and co-ordinate healthcare contingency planning in England during the pandemic; this was also used to co-ordinate communications, sharing of information and expertise across the other UK Countries. Supported by the Cabinet Office, the group worked with suppliers to ensure service continuity and provide a central point for escalation and contingency planning. It worked with the English and Welsh environmental regulators (Environment Agency and Natural Resources Wales) and relevant government departments including the Department of Health & Social Care and the Department for Transport (DfT) to ensure waste flows from healthcare premises to the relevant treatment facilities. The group signposted updates on Regulatory Position Statements (RPS) and/or relevant transport and co-ordinated weekly cross-government communication including with the UK countries and relevant regulatory authorities.

The Group also co-ordinated communications on healthcare waste matters to the NHS and back to the logistics and infection control structures and teams, overseeing the development of standard operating procedures (SOPs) and supporting the NHS in ensuring these SOPs were being applied. The COVID-19 Waste Management Standard Operating Procedure was first published on 9 April and updated in July and again in September. Similar co-ordination took place in Scotland with the responsibility and co-ordination for waste management and associated guidance residing with NHS Scotland who worked and liaised with other parts of the UK, further supporting a co-ordinated approach and joint working.

This guidance was shared rapidly and openly between the nations, via the Infection Control Leads, with Wales, Scotland and Northern Ireland following England's lead, rebadging and liaising with the relevant public health bodies as necessary to reflect the regulatory requirements of each UK country. However, while central oversight, cross-border co-ordination and information sharing was strong, multiple channels and layers of communication and the proliferation of guidance written from an Infection Control rather than a waste management perspective, contributed to an ongoing challenge with regard to the correct classification and segregation of waste in healthcare settings. This in turn had impacts on the downstream management and treatment of healthcare waste streams (see Infrastructure Section overleaf).

In addition, because of the pressure on the system, and the relatively small number of healthcare waste experts available to do the work, guidance for non-primary care healthcare settings and wider healthcare services (e.g. optometrists, chiropodists, chiropractors) was slower to be released, and became more pressing as the easing of lockdown restrictions started to be planned for in May. Some of this concern was centred around the classification and management of growing volumes of PPE being used for social distancing purposes both in hospitals by visiting patients and outpatients, in other healthcare settings, and in domiciliary settings where healthcare professional were conducting home visits.

People

There have been significant and unsustainable workload increases among professionals maintaining healthcare waste collection, reprocessing, and disposal services. There is an over-reliance on a small number of experts within the field to manage, develop, communicate, and co-ordinate guidance and contingency planning measures for healthcare waste provision.

These professionals provide healthcare waste management support and guidance to a wide range of organisations, departments, and sectors. These include the Devolved Administrations, Public Health bodies, local authority departments including social work and other care sectors.

In the health sector as a whole, there is limited understanding of the critical pathways associated with managing healthcare waste, and the pivotal role healthcare waste professionals perform in maintaining these essential services throughout the pandemic. One of the workshop participants explained:

> *"There was just an expectation that 'This is going to be about waste, and therefore you guys will step in and provide the guidance to do it'."*

Data

Data for the healthcare sector are notoriously difficult to find and assess due to the way contracts have been procured and the wide ranging sources of the waste. While there is data from the NHS reported though the Estates Return Information Collection framework (the main central data collection for estates and facilities services from the NHS), there is a significant volume of healthcare waste generated by allied health professionals, private sector and social care that is difficult to account for and track.

Infrastructure

There were already pressures on healthcare waste infrastructure prior to the COVID-19 pandemic, with some parts of the sector still in contingency measures. In the weeks following the start of the UK-wide lockdown on the 23rd March, workshop participants identified various pressures that came to bear on the system, the most significant being the correct classification of healthcare wastes. As mentioned above, uncertainty about how the virus was transmitted, the prevailing 'infection control' focus, and the multiple channels of communication have led to persistent misclassification and mis-segregation of healthcare waste due to a number of factors:

- adoption of incorrect disposal practices at the onset of the pandemic and the challenge of reversing those practices;
- ongoing perception that the majority of waste should be treated as infectious ((and therefore requiring heat treatment/incineration), heightened as numbers of COVID-19 cases increase across the UK; and
- incorrect or misleading information promulgated by some service providers.

As one of the healthcare waste workshop participants explained:

> *"So, we were seeing anything that had basically been into a COVID area was coming out as waste, so all the linen, all the pillows, all the food, absolutely everything, so there was zero segregation."*

As well as the profiles of healthcare waste significantly changing during the pandemic as COVID-19 halted routine hospital operations, there has also been a significant increase in PPE waste. This has resulted in increases in the volume (but not the weight) of waste materials being generated, with increases of 25-40% commonly being reported across the NHS. This has impacted on the number of clinical waste collection containers, predominantly wheeled bins, needed and as healthcare facilities have limited storage space and vehicular access to bins, containers have to be collected more frequently.

Workshop participants noted that the pressures that COVID-19 has put on the entire healthcare waste management infrastructure – from collection to treatment are set to continue to be a challenge over the winter if the number of COVID-19 cases continues to rise, coupled with the expected increase in incidences of other illnesses such as influenza. In addition, they highlighted the need for better planning for the management of healthcare wastes arising from the current roll-out of mass testing, as well as for the vaccination programme in Spring 2021.

Volumes of PPE waste have significantly increased

The workshop identified several areas for potential interventions within the existing healthcare waste sector and its infrastructure (it was noted that the NHS Waste Strategy for England is shortly due for publication and will provide a detailed strategic plan for healthcare waste in England):

- the need for the healthcare waste sector to work jointly and flexibly across health board areas during crisis situations; and
- a more strategic UK-wide approach to healthcare waste management infrastructure, acknowledging that waste is a devolved matter and due regard has to be paid to existing public procurement requirements and regulations, but recognising there are significant transboundary movements of healthcare waste across the UK.

Communications

Although a high level Cabinet Office Clinical Waste Resilience forum was established with meetings taking place weekly via videocall, no other formal all nations healthcare waste group was established, nor was there a standardised communications platform for the dissemination of waste-related guidance and information to multiple stakeholders across the UK. However, knowledge and information exchange did take place on a regular and informal basis, with organisations like CIWM providing some support.

Within the individual UK countries, a variety of communication platforms and forums were used by each healthcare waste professional to disseminate information and communicate with stakeholders; however as noted above, misclassification of healthcare wastes 'on the ground' continues to be a communications challenge.

Future Resilience

Recommendations to support the future resilience of the healthcare waste sector are as follows:

- **Recognition** – greater recognition and understanding of the work that healthcare waste professionals deliver.
- **Staffing** – increased resources (financial, training, education) to increase the staffing complement of healthcare waste professionals within each UK country.
- **Research** – carry out a UK-wide strategic examination of the existing collection, treatment and disposal infrastructure for healthcare waste.
- **Review** – collate and review the information and advice disseminated during the COVID-19 pandemic by the healthcare waste professionals.
- **Communications** - establish a UK wide healthcare waste professional communications forum to further enable information sharing, guidance development and dissemination.

The correct segregation of healthcare waste continues to be an issue

3.4 Winter 2020 to Spring 2021 Preparedness

As the stakeholder workshops and interviews were being conducted, the UK had already begun to experience an increase in COVID-19 cases and various restrictions to contain the virus were once again being put in place. Representatives from the public, private and third sectors across the four UK countries shared their experiences of the ongoing challenges they were facing, or were likely to face, and what help could be provided to support further sector preparedness this winter.

In planning for winter resilience, the overriding view was that the sector is not facing the same uncertainties experienced during the first months of the COVID-19 outbreak but is likely to experience a compounding of some of the existing challenges, such as the ongoing economic impacts, supply chain and market disruptions, staff shortages, and maintaining essential services - especially over the Christmas period and the EU Exit. The key learnings are summarised under the following key areas:

- contingency planning and communications;
- service delivery;
- staffing and resources;
- data; and
- economic impacts.

3.4.1 Contingency Planning and Communications

The key communication activities identified by the participants to support sector resilience this winter - many of which are already taking place - were as follows:

Maintaining the cross-sectoral partnership approaches, meetings and sharing mechanisms that have been established to support sector resilience and to deliver strategic shared objectives within each of the four UK countries, including an ongoing live assessment of the national and local risks and the sector's readiness to respond.

- Ongoing national communications activities in UK countries[9]: these could focus on the following activities, refreshing previous communication approaches, but also developing new campaign messaging to continue to engage a range of different audiences:
  - » request help and support from the public over the Christmas period to help manage expectations, and waste and recycling behaviours, at both kerbside and HWRCs due to the expected increases in waste and recycling volumes;
  - » revisit littering and fly-tipping communications with updated Christmas and winter messaging;
  - » revisit communication activities which reinforce good hygiene and the appropriate disposal of PPE in the general waste bin, not in recycling containers, and to avoid littering; and
  - » reinforce the contribution the waste sector is making during the winter period to help increase awareness and recognition for the sector, and the importance of key worker status.

In addition, new contingency planning and communication activities were suggested:

- The development of sector preparedness checklists in each country. These could include: cross-sectoral partnership mechanisms; communication pathways and campaigns; staffing levels; service delivery; sustainability of PPE supply, markets, supply chain resilience including access to critical parts, technical specialists, equipment and resources; and the capacity of reprocessing infrastructure.
- Additional communications and intervention support to reduce levels of contamination (including social distancing PPE) in both local authority and commercial recycling collections.
- Ensuring that communications stakeholders and relevant third sector stakeholders are linked-in to the main contingency planning stakeholder groups across all four UK nations.
- Ensuring that appropriate and timely consideration is given to the management and correct segregation of healthcare waste arising from the roll out of mass testing and vaccination programmes.
- Collate examples across the UK of good practice in relation to staff communication and staff training using online platforms and other remote methods.

3.4.2 Service Delivery

Guidance

There are ongoing challenges on how good practice information and guidance is being interpreted and variations in implementation at the local authority level due to a combination of different geographies, rates of infection, restrictions, political and union views. One of the Welsh workshop participants explained these variations in approach:

> *"They can be geographical, they can be service based, they can be around the population and indeed at the moment, because it is a pandemic, it can be very much associated with the rate of infection, which isn't the same everywhere. Clarity is the overall objective so you make sure that what needs to apply does apply."*

[9] DAERA has supported WRAP in Northern Ireland to run a second COVID-19 waste and recycling campaign (https://www.recyclenow.com/news/2020-04-23-nationwide-campaign-launched-northern-ireland-support-recycling-and-waste-workers).

Some participants felt that further clarification is required to make sure that decisions can be taken in relation to service provision that take account of core local factors and address any ongoing concerns that may be raised by trade unions. Depending on the UK nations' progress in containing the virus during Winter 2020 and Spring 2021, issues that are likely to be raised again include:

- the number of operatives who can safely work in a collection vehicle;
- safe deployment of convoy systems;
- transmission of the virus in other waste-related working environments (depots, MRFs, etc) and its survival rate on different surfaces; and
- what constitutes good practice in terms of PPE.
- The key activities identified by the participants which they would welcome to support sector resilience this winter were:
- ongoing reissuing of the WISH guidance as required to continue to reflect industry requirements (WISH Forum representatives have suggested that the next version of the guidance could focus on refresher messaging, and further clarity on some specific issues); and
- continued flexibility from UK environmental regulators as required, including reviewing temporary COVID-19 regulatory positions if needed (recognising that the UK environmental regulators are experiencing pressures associated with higher flooding risks and other winter events, coupled with the implications of EU Exit).

Local Authority Sector

Although the sector is in a less vulnerable position than at the start of the pandemic and has shown resilience in maintaining services across the UK countries, quick and flexible redeployment of staff may become necessary again and consideration should be given to the risk that this may be more challenging due to:

- higher levels of staff absences due to increased testing and associated self-isolation requirements;
- higher levels of shielding for vulnerable staff due to concerns over increasing risk of infection;
- increases in waste and recycling volumes over the Christmas period;
- potential shortfall in drivers this winter due to due to increased level of infection or self-isolation, drivers previously seconded from the other local authority departments during the first wave may no longer be available - for example they may be needed for needed for essential winter maintenance (in Scotland, for example, COSLA is in discussion with Transport Scotland to work co-operatively to reduce the risk of a shortage of drivers during the winter period.); and
- fewer opportunities for staff from non-essential services, including HWRCs, to be deployed to help maintain essential services.

In addition, it was noted there are increased levels of contamination being reported in kerbside recycling services and these are likely to rise throughout the winter. One of the private sector Scottish workshop participants, explained the pressures on the sector over Christmas:

> *"Christmas is coming... and usually, we see waste volumes increase by 30% across the space of two weeks in recycling from local authority. We're talking about the pressures that are about to hit us; that's another pressure that's coming our way in terms of volume and composition, and I suspect that's going to be a bit of a challenge for us..."*

Private Sector

The commercial sector will continue to be vulnerable this winter due to other sectors being switched on and off under restrictions being implemented within each of the UK countries to contain the spread of COVID-19. Therefore, the associated economic impacts on the resources and waste sector are likely to vary significantly depending on the levels of restrictions in different parts of the UK.

Ongoing risks to the private sector include:

- higher levels of staff absences due to mass roll-out of testing and self-isolation levels, with the risk of entire shifts being affected and/or lack of cover for specialist roles;
- increased levels of staff shielding due to concerns over increasing levels of COVID-19 infections;
- increases in waste and recycling volumes over the Christmas period and EU exit which will put additional pressure on supply chains and markets;
- shortfall of drivers this winter - linked both to the pandemic and EU exit;
- ongoing income losses, particularly for C&I waste collectors and risk of redundancies; and
- increased levels of contamination in commercial collections.

For both the local authority and private sectors, maintaining the current structures for contingency planning and communication were identified as being essential, coupled with ongoing assessment of the impact of COVID-19 on local authority sector budgets and where additional business support measures could be needed for the commercial sector to help maintain viability.

Third Sector

The third sector will continue to be very vulnerable this winter, with many organisations indicating they may not be financially sustainable over the next 12-month period, or those organisations able to survive struggling with depleted reserves that limit their opportunities to diversify, innovate and develop. In a recent CRNS impact report[10] 23% of organisations were not confident of recovering in the next 12 months.

Measures put forward to improve resilience included:

- relevant third sector representation on the strategic contingency planning groups across the UK countries to improve understanding of the impacts on this part of the supply chain; and
- improve communications between local authorities and the third sector to help manage reuse supply chains.

A local authority sector participant in the Scottish workshop discussed the potential opportunities to address these concerns:

> *"It just struck me there that we probably could have liaised a little better with the third sector and considered the impacts that the changes we were making to recycling centres might have on the reuse sector and third sector..."*

3.4.3 Staffing & Resourcing

Testing Programmes

Additionally, further consideration should be given to the impact on staffing levels of the roll-out of mass testing to contain the virus and ensure staff safety. Contingency planning for staff shortages will therefore continue to be a high priority for all parts of the sector across the UK.

Measures suggested to mitigate the risk included:

- testing programmes could take into account the levels of mitigation that have been implemented within a company or a local authority, thereby reducing the risk of potentially a whole team being asked to self-isolate if they have come into contact with an individual who is COVID-19 positive; and
- regular or prioritised access to testing for staff who have been asked to self-isolate, so that they can return to work as soon as possible.

The latter point was raised in the English workshop by a private sector participant who asked:

> *"Is there a way to fast track if companies are able to access tests either through NHS routes or even privately funded tests if they can do that a bit quicker? Can that process be expedited such that workers can get back to doing their job a bit more quickly?"*

Mental Health & Wellbeing

As the COVID-19 pandemic continues, the impacts on workers' mental health and wellbeing are becoming visible in the waste and recycling sector (and beyond). This requires further investigation and collaboration with other sectors. It is of immediate concern for staff who are working from home on a continuous basis and have limited social interactions with work colleagues. One of the private sector Northern Ireland interviewees explained how they are attempting to address this concern at work:

> *"We are in for possibly no Christmas dinner with your teammates, trying to find a way of creating that spirit without any interaction which is next to impossible to do. We are talking of – if we can, if the rules allow us – to meet in open spaces when rules relax because mental health needs monitoring. That is the next biggest risk: mental health."*

Possible, short term mitigation measures suggested in the workshops included:

- a staggered approach to allowing smaller numbers of administrative and non-frontline staff, on a rotational basis, to return to the workplace over the winter period; and
- using the local /regional R Number as a mechanism to bring people in and out of the workplace depending on the level of risk, for example if the level is 1 or less, staff can return to the office, and if it increases there is a return to homeworking.

[10] https://www.crns.org.uk/wp-content/uploads/2020/11/IMPACT-REPORT-2020_Online.pdf

3.4.4 Data

Although the range and volume of data generated by the various public and private sector surveys across the UK countries was encouraging, there are still significant gaps and measures to improve data capture from the commercial sector that should be explored.

It would be helpful to develop a more standardised methodology to generate a similar granularity of data as recorded in the various sector surveys. This is likely to continue to be challenging due to commercial confidentiality; the differences in size and types of businesses; and the range of services and multiple sites within the commercial sector. Any future surveys need to provide data outputs rapidly, that are of use to the sector to incentivise and encourage participation. In England, Defra has already responded to this need with a revised and simplified industry survey that is now live. Reports of previous surveys are available to show the responses over time, but respondents to the surveys are self-selecting and each survey shows a snapshot rather being than part of a timeseries of data.

Developing a better understanding of the waste composition and volumes, how service requirements for other sectors have changed as a result of COVID-19, and what the impact on commercial collections could be, would also be helpful to support sector resilience and diversification to sustain economic viability.

3.4.5 Economic Impacts

Ongoing economic impacts this winter for the:

- local authority sector impacts are likely to include increases in the volumes of household waste generated and higher service delivery costs, and reduced income from trade waste collections and material sales;
- private sector impacts will include fluctuations in the volumes and composition of waste generated, changes in material prices and international markets, material flows, supply chain disruption, and reductions in commercial waste.

As well as the pandemic, the EU Exit, changes to the Basel Convention rules on plastics exports[11], and further export market restrictions, are all likely to have significant economic consequences for the sector this winter, with the collective impact of these unknown at the present time.

Image courtesy of Forward Waste: *COVID-19 signage in the workplace*

[11] Changes to the international agreements within the Basel Convention which govern the export of plastic waste.

3.5 Future Resilience

Workshop participants and interviewees also shared their opinions on what is needed to support medium to longer term sector resilience in the event of future pandemics and other potential system 'shocks'. The final section of the report focusses on the following key areas for resilience-building identified by participants:

- communication and engagement: including sector recognition and cross-sectoral collaboration;
- infrastructure and supply chains: including designing future Extended Producer Responsibility frameworks and a strategic review of critical infrastructure;
- data and research carried out at the regional, national and global level;
- skills, training and competence frameworks; and
- wider policy landscape concerns, including monitoring the extent of the economic impact of COVID-19 as it emerges.

3.5.1 Communication and Engagement

Sector Recognition

One of the key areas to support the sector's future resilience is the need to increase the visibility, recognition and understanding of the critical role the sector has played as an essential service in supporting every part of the UK economy during the pandemic. The sector has operated under challenging conditions to maintain essential waste and recycling services for the public, healthcare, and all other business sectors, and for the recovery, reprocessing, and disposal of all materials collected. This has all been achieved in the context of the sector often being overlooked and undervalued, pre-COVID-19, compared to other utilities.

While there was acknowledgement for the sector – both from ministers in all four UK countries and as part of the weekly clap for public sector workers – there was a sense from participants that a concerted push is now necessary to ensure that this recognition is maintained and built on. In addition, there was discussion that highlighting the public service function of the sector should not be allowed to eclipse the contribution it can make to future economic and climate change priorities both in delivering a 'green recovery' in the shorter term and as an underpinning sector for clean, low carbon growth in the longer term. One of the Scottish private sector workshop attendees, stated:

> *"Certainly in the organic sector, we are lucky in that we're not reliant on export markets for our supply chains and end products; it's totally a circular economy right here in Scotland where all the material is used, huge benefit to the soil and organic matter and everything else, so it's something we should be promoting a bit more, I think."*

Cross-Sectoral Working

The cross-sectoral partnerships established within each of the UK countries were noted as successful mechanisms through which to engage multiple stakeholders, and to co-ordinate responses and actions across the resources and waste sector. These helped to improve understanding of issues across the supply chain, share information and knowledge, anticipate disruptive factors and trends, and drive collaborative solutions.

The benefits of this approach were universally recognised by participants both in terms of supporting the response to the immediate challenges faced during the pandemic, and for providing further support during the winter. In the longer term, participants suggested these cross-sectoral partnerships should not only be used in the event of future pandemics but be retained post-COVID-19 to support future policy development. For example, in both England and Scotland, the cross-sectoral stakeholder groups established are also now being used to support sector readiness for EU Exit. One of the Welsh Government representatives at the workshop, stated:

> *"It was really fantastic the joint working that did go on during the pandemic... So many people went the extra mile and it has had an impact on our normal way of working... in terms of the partnership working that we were able to do, it has changed the way in which we are trying to set up the future work and the more general work in relation to policy. It is having a real impact... it was very positive."*

In addition, the learning from the COVID-19 experience could be used as a springboard to stimulate and support other opportunities for collaborative working through both existing fora and networks and through new initiatives and partnerships. Improving relationships between the industry, regulators, and trade unions was also seen as an important step to promoting greater resilience in the future.

Communication Activities

For future pandemics, other specific communication activities highlighted by the participants to support sector resilience were as follows:

- As part of future contingency planning, consideration should be given to developing an internal and external communications strategy for the sector. This should include recommendations for governance and cross-sectoral working mechanisms which facilitate both internal communications within and between organisations, and external communications to the public and the sector.

- Collate good practice examples of the wide range of communications collateral that was produced during COVID-19. This should include public information campaigns produced by WRAP and Zero Waste Scotland, sector-facing communications such as SEPA's "Stay Compliant, Protect the Environment" campaign, and targeted public and business messages to drive specific behaviour change such as the correct disposal of PPE.
- Dissemination of learning and good practice in delivering frontline workforce health and safety training using online platforms and other remote mechanisms. Attendees highlighted the need for investment to develop online communication platforms, and training to support their use, to enable quick and effective routes of communication to frontline staff in the event of future pandemics.
- Refresh the focus on health and safety to continue to improve sector performance and to understand risk, based on the lessons learned from COVID-19. Attendees highlighted the need for clear advice and guidance, collaborative working, and a centralised information hub.
- Increase recognition of the importance of education, training and competency to support overall health and safety performance and help build future sector resilience.

3.5.2 Infrastructure & Supply Chains

Building Sector Resilience

While the resources and waste sector overall has demonstrated good levels of resilience, COVID-19 has highlighted a number of existing and new areas of vulnerability, including critical infrastructure capability and planning, good quality data, feedstock availability risk (e.g. WEEE and biowaste) and market demand / price volatility. Measures to address these will not only contribute to greater levels of sector resilience in the event of a future pandemic or other system shock, but are also important to support the contribution that the sector can make to delivering on UK ambitions on resource productivity, clean growth and net zero.

By shining a spotlight on these vulnerabilities, COVID-19 provides a compelling opportunity to assess systemic weaknesses and critical pathways. This assessment can then inform future contingency planning, strategic infrastructure planning, and policy development. Key considerations were identified as follows:

- Reforming/designing future Extended Producer Responsibility frameworks for WEEE, furniture, mattresses and other bulky items, textiles, etc. to support a resilient reprocessing sector, with more diverse collection infrastructure to capture these waste streams (i.e. not solely reliant on kerbside collection or HWRCs) and accessible emergency support funding mechanisms in a similar way to the WEEE Support Grants and Loans package during the pandemic.
- Strategic review and planning for specific critical infrastructure such as healthcare waste: this should be part of the England healthcare waste strategy expected soon but should also be planned for at a pan-UK level to build in appropriate resilience in the case of another future pandemic.
- Prioritise the development of measures to stimulate investment in domestic reprocessing capacity to support the 'green recovery'.
- Build additional capacity into UK environmental regulators and ensure they are adequately resourced to respond to future 'system shocks' while still maintaining essential permitting, compliance and enforcement, and business support activities. In the shorter term, an assessment should be undertaken by the four UK governments and environmental regulators of the uptake and efficacy of the temporary regulatory positions adopted to inform future risk assessment and mitigation planning for waste in the event of a pandemic or similar system shock. Again, these types of activities are likely to require increased funding for additional staff from government and regulators.

Service Delivery

Activities identified to support future waste and recycling service delivery were the further development and/or refinement of good practice guides – for example for HWRC closure and reopening, waste and recycling service prioritisation, and disruption mitigation. This work could include a review of any new operating practices adopted initially in response to COVID-19, which are now being retained due to improvements being realised for staff, working practices, transport, efficiencies in terms of cost or carbon, etc.

Staffing & Sharing Resources

The ability to share services, staff and equipment to help balance impacts across the sector was another mechanism identified to support future resilience. However, based on the experiences across the UK during the pandemic, the following barriers would need to be overcome to enable this to be a practical reality for the sector:

- Development of contractual and financial operating models which enable resource sharing. This could involve more control being retained by the private operator; for example, if vehicles were redeployed then it would be private sector staff who would operate or manage equipment. This would help to negate the perceived risk of seconded staff choosing not to return to their employer but has potential financial and technology implications.
- Constructive dialogue with unions, to enable sharing of staffing resources between the public and private sectors, and with private sector companies to address contractual barriers.
- Health & safety certification and insurance issues associated with existing passport schemes, which prevents the rapid deployment of different levels of staff between the public and private sectors. If these could be addressed, the operation of a simplified passport scheme would lead to greater flexibility within the workforce and allow staffing resources to be more readily shared and

support resource-lean organisations to be more multi-functional. In Scotland, SWITCH is currently reviewing its standard Competency Framework to facilitate the operation of an efficient passport scheme[12].
- Online sharing platforms such as the CIWM WasteSupport tool could also be revisited and further developed to enable the sharing of staff and resources.

3.5.3 Data & Research

To inform future resilience and build capacity within the sector to manage any future pandemics, there is a requirement for research and analysis to be carried out at the regional, national and global level and a number of priority areas were identified by workshop participants:

- A fuller understanding of the pathology of COVID-19 and its behaviour in the waste system, with specific reference to the bio-aerosol transmission of the virus and its survival rate on different surfaces.
- A collaborative review of the WISH guidance, and any other guidance produced, to help inform and develop a blueprint for future viral pandemics.
- A detailed economic impact assessment of the effects of COVID-19 on the sector.
- Development of a more standardised methodology for data capture across the private sector to generate a similar granularity of data as recorded in the local authority sector surveys. Proposals to introduce UK-wide electronic waste tracking will assist in developing robust data sets. These should not be confined to supporting compliance with regulatory frameworks but must also provide the necessary data interrogation functionality to allow the effective monitoring of waste volumes and movements to support both future resilience and UK ambitions on resource productivity and a more Circular Economy.
- Analysis to understand how waste composition, volumes, and service requirements for other sectors have changed as a result of COVID-19 to inform future planning and support sector resilience and diversification.
- An assessment of the digital opportunities and challenges that COVID-19 has served, to highlight across the sector and the associated training and skills needs.
- Review and identify new business and funding opportunities for the third sector to ensure organisations with depleted reserves due to the pandemic do not take a step backwards, but can further diversify, innovate and develop as part of a vibrant Circular Economy. New opportunities could include supporting the development of new digital business models such as online platforms.
- A detailed environmental and carbon impact assessment of the effects of COVID-19 across the sector, taking into account the positive carbon benefits due to a reduction in travel, the increase in remote working and other changes to business practices, and increased recycling levels, as well as negative impacts resulting from service disruption, littering and fly-tipping (as more accurate data becomes available) and wider behavioural factors such as greater reliance on single-use packaging for hygiene reasons.

3.5.4 Wider Policy Landscape

A number of workshop participants (as well as other stakeholders in different fora) emphasised that it is important that progress is maintained on the planned UK-wide policy frameworks currently under development, including packaging Extended Producer Responsibility, Deposit Return Schemes for beverage containers, greater consistency in collections for households and businesses, and the Plastic Packaging Tax. These will all contribute to improving the resilience of the sector in the longer term by improving recycling performance (both quantity and quality), increasing domestic reprocessing capacity, reducing our reliance on exports, and helping to optimise recycling and reuse across the supply chain.

Given the scale of change the proposals will drive across the resources and waste supply chain, it will be important to monitor the extent of the economic impact of COVID-19 as it emerges more clearly. Sector resilience, both local authority and the private waste sector, will be essential to respond to the service and waste stream changes that are being proposed and additional support may be needed over and above the 'new burdens' money and funding through the new packaging EPR system.

4 Future Work

This report makes a number of recommendations with regard to the future resilience of the resources and waste sector but there is still some way to go before the UK will be in a position to fully assess the impacts of COVID-19 and develop plans to 'build back better'. The partners in this research hope that this report can provide a springboard for more cross-sector discussion and debate over the coming months.

This report also forms part of the larger COVID-19 Waste Project funded by the Economic and Social Research Council as part of UKRI's Rapid Response to COVID-19. In partnership with CIWM, the project is led by the University of Exeter, in collaboration with the University of Nottingham, King's College London, and the Open University. The COVID-19 Waste Project is investigating how the sector is responding to the pandemic across all UK countries, and includes the analysis of operations, guidance, policy, communications, and cross-sectoral collaboration. It aims to generate data, resources, and a more detailed report (in June 2021), that assesses the impacts of COVID-19 and informs plans to build future resilience.

Those interested in participating in the project should contact Principal Investigator Dr Angeliki Balayannis at a.a.balayannis@exeter.ac.uk. Further information on the project is available on the website: www.covid19wasteproject.org.

[12] Please refer to the SWITCH Forum section of this report

CIWM

The Chartered Institution of Wastes Management (CIWM), is the professional body which represents waste and resource professionals working in the sustainable waste and resource management sectors worldwide. CIWM sets the professional standards for individuals working in the industry and has various grades of membership determined by education, qualification and experience.

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