

2023 / 2024

Annual Environmental Report

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Annual Environmental Report
2024 is the eighteenth Annual Environmental Report (AER) published by re3, highlighting the activities of the partnership and how the waste received has been managed throughout the previous contract year.

Cover image: Coffee Pod Recycling
In the summer re3 began a trial collecting coffee pods at both recycling centres working with Podback, a not-for profit recycling scheme, created by the UK's leading coffee pod brands, Nescafe Dolce Gusto, Tassimo, and Nespresso.

An introduction to re3

re3 is a waste management partnership between Bracknell Forest, Reading and Wokingham Borough Councils. The partnership between the councils was established in 1999, with the goal of offering residents and business' sustainable, top- tier, recycling, and waste disposal services for the three local authorities.

To provide this service a 25-year Private Financial Investment (PFI) was established, and FCC Environment joined the partnership to deliver the contract on behalf of the three councils. FCC Environment is one of the UK's leading waste and resource management companies in the UK, operating and managing over 100 contracts across 109 local authority areas around the UK.

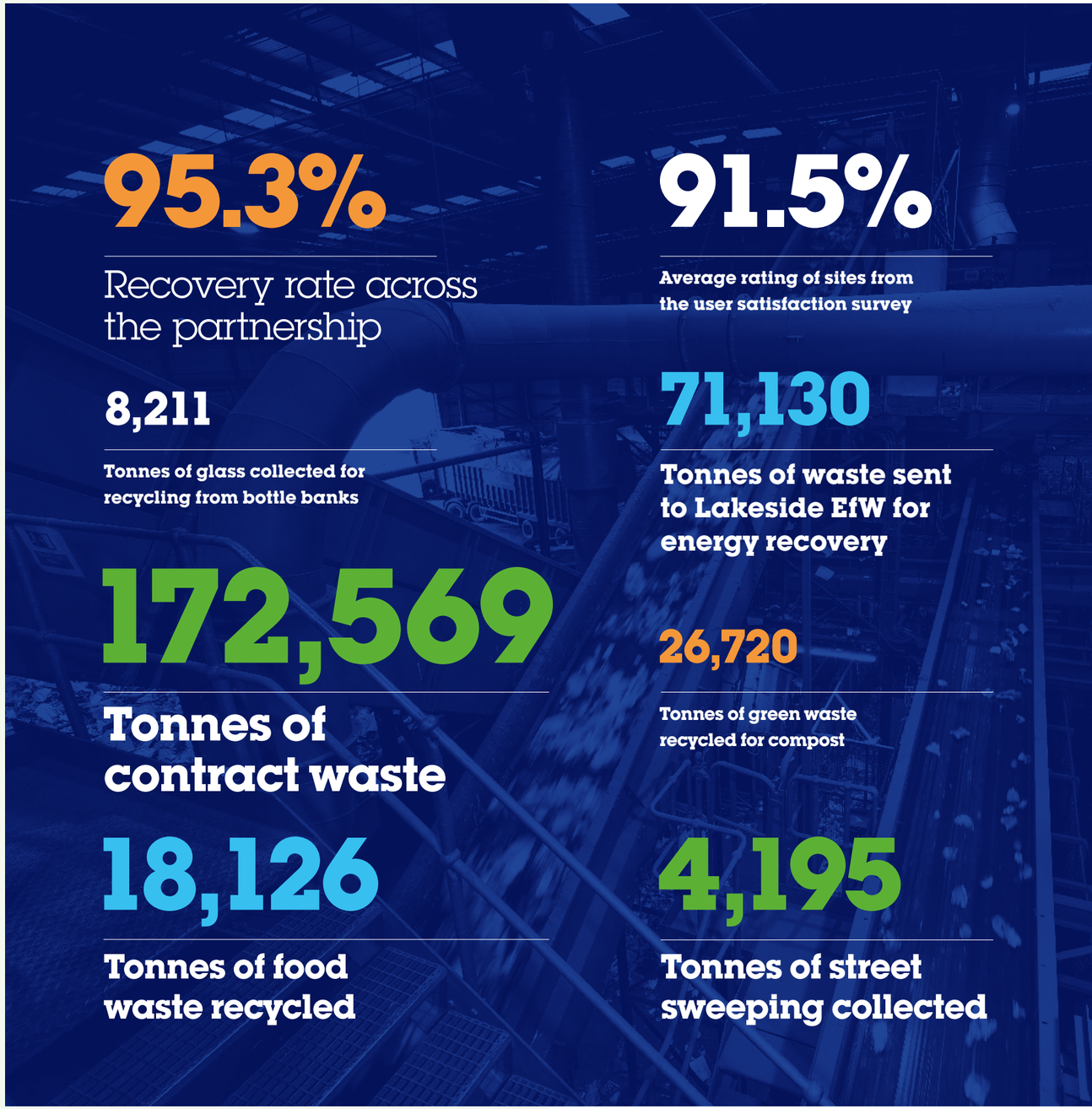
2,250

The FCC UK family consists of over 2,250 employees who help to recycle 1.1 million tonnes of waste each year

The FCC UK family consists of over 2,250 employees who help to recycle 1.1 million tonnes of waste each year, in addition to providing waste management solutions to 7,652 business, as well as producing 117MW of green energy from non-recyclable waste.

Individually the three councils are responsible for their own waste collections, which are brought to either of the two re3 facilities, Longshot Lane in Bracknell and Smallmead in Reading. Further to this, the partnership also provides bottle banks across the three boroughs for the public to bring their glass bottles for recycling.

The purpose of this Annual Environmental Report is to give you, the reader, an introduction into re3, from how much material is brought to both sites, the treatment process and what happens to the material once it leaves our facilities, as well as highlighting achievements during the contract year, 1st April 2023 to 31st March 2024.



General Managers Message

Hello, and welcome to the latest edition of our Annual Environmental Report. I have worked at re3 for 13 years but this is my first as General Manager and it's a delight for me to be sharing this report with you, the members of the community we serve.

Our AER follows on from previous years reports, highlighting all the amazing activities in which we are involved with here at re3, turning waste into a resource and diverting waste from landfill. This year's report, again, has many articles showcasing all the fantastic new initiatives that re3 has put in place during the previous contract year. re3 site virtual tours were launched, so our many visitors can be fully informed before they come to site and can even enjoy a visit from the comfort of home. There is also a section on our Household Waste Recycling Centres and the new Podback scheme for you coffee lovers out there, as well as a section on the continued success of our re3paint and re3grow schemes.

Here at re3, our main focus is on the Reduction, Reuse and Recycling of waste. I'm proud to be part of a team that can report a recovery rate for the previous year of 95.3%, an ongoing and fantastic achievement from all involved across the partnership, households, members of public, the Councils, collection crews and all staff here at re3, but there's still more we can do and as we go into 24/25, we are always looking for ways we can improve even further.

The future of the whole waste industry is still facing uncertainty with the introduction of the Resources and Waste reforms. We are actively managing and considering many scenarios for the introduction of the Extended Producer Responsibility, Simpler Recycling and Deposit Return Scheme. Whilst it will be a difficult transition, the end goal will be worth it, with an outcome being a simpler and more consistent approach to recycling, a much wider participation rate and even higher recycling rates. re3 will be with you all the way.

We continue our focus on Reuse and working with Sue Ryder. To compliment this there are dedicated reuse drop off areas within our recycling centres, and we run "Reuse Pop-Up Shops" at both of our sites at certain times throughout the year. Every event we have run so far has been very popular, and we'll continue this in 24/25. See you there and let's hope for some nice weather.

Thank you again for all your help as we can't do what we do without it and I wish you all a happy and healthy 24/25.

Scott Adams
re3 General Manager



95.3%

"I'm proud to be part of a team that can report a recovery rate for the previous year of 95.3%, an ongoing and fantastic achievement from all involved across the partnership"

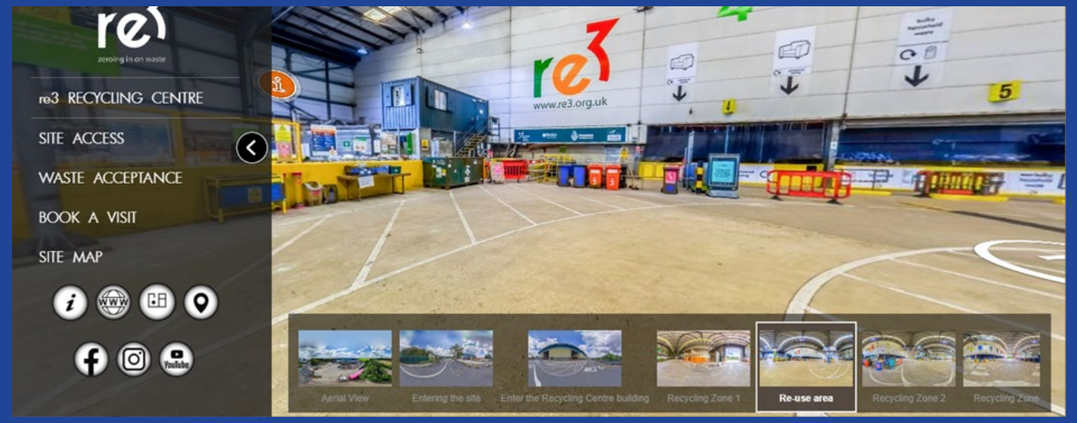
Scott Adams
re3 General Manager

Projects

Virtual Tours

At the beginning of 2024 virtual tours of the re3 facilities were launched. This service provides users with the opportunity to explore Bracknell and Reading Recycling Centres and the re3 Material Recycling Facility (MRF) through immersive 360˚ views. The aim of the virtual tours is to allow visitors to familiarise themselves with each of the facilities, allowing them to better prepare for their visits, alleviating any potential anxiety associated with such trips.

Furthermore, the virtual tour of the Material Recycling Facility (MRF) was produced to support the re3 public engagement program. Given the limited availability and age restrictions, only a small number of residents can visit the sorting facility. This virtual tour, therefore, allows a broader audience, especially schools, to experience an authentic behind-the-scenes look at how recycling is managed locally. All tours are enriched with facts and advice, including site maps, photographs, videos, and 360-degree views of key areas, providing both aerial and internal perspectives of the facilities. The tours are mobile friendly and accessible via the re3 and councils' websites as well as via Google Street View, enabling users to closely examine the facilities without leaving their homes.



re3grow

The re3Grow Community Compost scheme commenced on March 13th, 2022. The initiative was introduced to not only provide free compost to local community groups but also to foster recycling awareness and promote community activities in the re3 area. Garden waste recycling is one of the most popular waste services amongst residents at our recycling centres. Therefore, offering our very own recycled garden waste back to the community, in the form of compost, made recycling much more personal, in turn enhancing the public's engagement, as it helps to illustrate firsthand the benefits of recycling, which they can witness in their own community.

Since the introduction of the scheme, 2,228 bags, comprising of 89,120 litres of compost, have been donated to 88 different community organisations across the local area, benefiting over 10,000 people both directly and indirectly. A further positive of the scheme is that it has generated £8,590 in social value (to date) across the re3 area because of the community donations.

Within the community the compost has led to numerous first-hand achievements, from nourishing community allotments; growing fruits and vegetables for local food banks; enhancing sensory gardens in local schools; supporting less fortunate individuals in enabling them to grow their own fruit and veg; offering social and therapeutic horticultural sessions; and simply enhancing the general wellbeing of the local area by creating more inviting outdoor spaces.





Future of the waste industry

Resources and waste reforms

Over the course of coming years, the UK is introducing a raft of legislation to improve waste management and recycling. From Extended Producer Responsibility for Packaging to Simpler Recycling, the new regulations aim to standardise services and encourage improvements to packaging design that will lead to reductions in material and increased recycling.

Extended Producer Responsibility

Extended Producer Responsibility (EPR) for Packaging is the central tenet of the Resources and Waste Strategy. Its implementation has been slow, but it should now come into force in October 2025 with government currently finalising the design of the scheme. Under EPR, packaging producers will fund the full net cost of recycling.

Simpler Recycling

After a prolonged delay, in May of this year the Government finally published its plans for evolving consistent collections – wrongly dubbed the 'seven bins policy' – into Simpler Recycling. Under the plans, all local authorities will collect glass, metal, plastic, paper and card, food waste, and garden waste. Local authorities and waste collectors also will be required to collect plastic film as part of the plastic waste stream by 31 March 2027. This policy will also apply to business which create 'household like' business waste.

Deposit Return Scheme

After four different delays from the Department for Environment, Food and Rural Affairs (Defra), the Deposit Return Scheme for drinks containers is now set to be implemented on the 1st of August 2027. Almost 10 years since it was first announced by Michael Gove, back in 2018 when he was Defra Secretary.

The introduction of a DRS has the potential to transform the UK's recycling rates, with UK consumers purchasing an estimated 31 billion single-use drinks containers each year – 12 billion plastic drinks bottles, 14 billion drinks cans, and 5 billion glass bottles. Only around 70% to 75% of these ends up getting collected and recycled at present.



75%

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Performance Monitoring

Contract requirements

Both the contractor and the client maintain continuous oversight of the performance of the contract through 70 Key Performance Indicators (KPIs). Should the contractor's performance fall below the specified standards, penalties and financial repercussions may ensue. KPIs consistently underperforming and incurring penalties must undergo a formal review, potentially promoting adjustments to operational procedures to address the situation. There are a vast range of indicators that are monitored under these KPIs from waste management disposal, to health and safety protocols across site.

Daily checks
Daily and weekly checks are conducted to verify the contractor's adherence to essential contractual requirements and the proper maintenance of the Recycling Centres. These inspections encompass factors such as visitor counts, collection point capabilities, environmental management, plus aiding compliance with the environmental permits at the two sites.

The benefit of monitoring
Through the analysis of the monthly KPIs and various annual reports the contractor and client can identify areas in need of improvement quickly and effectively, thus enhancing not only the operational performance across both sites but the service provided to the client and more importantly the public.

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582,908

Throughout the contract year (2023-24) the combined number of visitors for the two recycling centres was 582,908, 72,966 more people than the previous year. Due to such footfall, we receive both Complaints and Compliments, which we use to enhance the customer satisfaction when visiting site.



28%

During the 2023-24 contract year we received 39 direct compliments, a 28% increase on the previous year.

Customer satisfaction

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Complaints

Complaints received at re3 are dealt with utmost sincerity, all written complaints received by the public must be acknowledged within 3 working days, which then requires a full written response within 10 days. The purpose of this is to allow re3 to assess each complaint and look to mitigate the potentiality of similar instances occurring in the future, whilst at the same time enhancing customer satisfaction on site.

During the 2023-24 contract year re3 received 46 complaints a 2% reduction on the previous year, however, as aforementioned with nearly 73,000 more visitors to site, the decrease in complaints highlights a huge success and something both teams can be proud of, with the overall proportion decreasing significantly.

Compliments

Not only are complaints important to improving service on site but so are compliments. These allow us to identify what is working well on site and what we can look to do more of in the future. In addition, it provides a source of motivation and pride for the team on site, as we can reflect and highlight the hard work that is put in by everyone. During the 2023-24 contract year we received 39 direct compliments, a 28% increase on the previous year.

User satisfaction

Each year we complete the Annual User Satisfaction Survey, allowing residents from the three Councils to voice their opinions regarding both Recycling Centres, including, how they rated the levels of customer care, cleanliness, health and safety, queue management, staffing, and in addition to how residents feel we can improve the site for their next visit.

For this year's survey, re3 Councils utilised the resident booking system to ask people to take part in an online survey, as was the case in the prior year. In total 3123 surveys were completed by residents who visited the re3 facilities, 1617 for Longshot Lane and 1506 for Smallmead. The results of the survey were extremely positive with every aspect showing an improvement in the levels of satisfaction. Year on Year the overall satisfaction at both sites continues to improve with this year yielding some of the highest ever ratings received at both sites, Longshot Lane went from 89% to 91% and Smallmead 90% to 92%, something which we are extremely proud of and highlights the tremendous work the teams are doing. However, we are not stopping here, we will be building on this great work, and we are looking to implement many of the public recommendations to further enhance the experience in the new contract year!

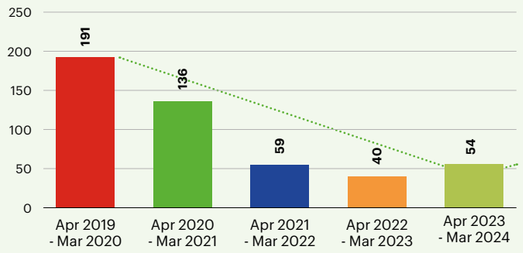
Health and Safety

One of the most important, if not the most important part of the whole operation at re3 is Health and Safety.
Last year there were 54 accidents in total across both sites, 32 of which resulted from residents cutting themselves on their own waste when unloading from the car. In addition to accidents, we record the number of near misses which occur at both sites. Near misses are incidents that have the potential to cause Health and Safety or Environmental incidents. In total there were 244 near misses at both sites during the contract year. Over a third of these were because of the actions of the public, most commonly having children out of the car which is prohibited at both Longshot Lane, Bracknell and Smallmead, Reading Recycling Centres due to the volume of traffic each site receives.

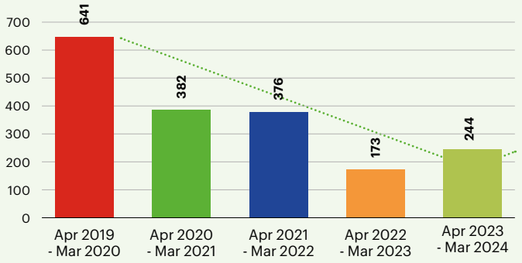
This is the first time in several years where the contract has not seen a reduction in both the number of accidents on site and the near misses. There are two potential factors that have influenced this. First, as mentioned above, there has been a rise in the number of visitors to site. More people on site increases the potential for incidents to occur. Additionally, during the summer of 2023 FCC launched the Complacency Kills campaign, an initiative to remind staff of the dangers of becoming complacent on site. As a result of this campaign, it has increased vigilance in the workplace and the number of monthly accidents and near misses decreased and remained below the pre campaign monthly totals.

During the early months of 2023, the waste industry was the unfortunate bearer of 8 fatalities, and whilst none of these took place at FCC facilities, we believe as a business it was appropriate that we took action across our own sites which is why the campaign was introduced. The purpose of the campaign is not to scare- monger, but to highlight the importance and very real possibility that complacency can have a serious impact on our lives, even if we are not the ones being hurt. Whilst we constantly train our team on health and safety campaigns, safe working procedures and risk assessments, the campaign emphasises the need for such training and the importance of remaining vigilant and diligent not only at work but in our day to day lives.

Number of Accidents



Number of Near Misses





Reading:
Battery fire causes £20k damage to recycling centre

Environmental Safety

Fires

Fires remain an ever-prominent threat to the waste management industry, and this year again National Fire Chiefs are reporting that they have attended around 300 significant fires at waste management facilities with the most common causes being zombie batteries and vapes. In light of this, there has been significant policy intervention that has been welcomed by many in the industry – the banning of disposable vapes. Every day the teams on site are still removing numerous amounts of vapes and batteries from the Mixed Dry Recycling (MDR) in the MRF, and unfortunately this comes as little surprise. In a YouGov Poll in 2022, commissioned by the Environmental Services Association, it found that the majority of people are not confident of how they should properly dispose of vapes.

In the 2023-24 contract year at re3, there were 11 fires on site, a reduction on the previous year's 15 fires. Two of the fires were from waste in the back of dust carts, so were tipped in the isolation bay on site in a controlled manner and dealt with quickly. However we were not so lucky with the rest of the fires as these were in and amongst the waste with the likely cause for these to be zombie batteries. The term "zombie batteries" refers to discarded batteries that end up in recycling bins or black rubbish bags. These batteries are easily damaged by sorting equipment and can start to burn, posing a fire hazard. The name draws from their ability to cause unexpected problems, much like how zombies unexpectedly emerge from the dead. On the 9th of October there was a fire in one of the waste bays in the Smallmead Transfer Station in Reading. Despite the fire being relatively small and the fire brigade managing to extinguish it, it still led to estimated damages of £20,000!

To tackle this issue head on, we supported a sector wide initiative to raise awareness of incorrectly placing batteries in household waste or recycling bins. We worked with BBC and ITV nationally to get this message out far and wide. We continue to do this with our site footage being used again by the BBC in May.

Not only this but the team on site undertake numerous tasks to mitigate against the threat of fires. This includes proper waste segregation, storage and disposal, and regular maintenance and inspections of fixed and mobile machinery as well as fire suppression and prevention systems. In addition to this there is regular training to the staff to educate them on the risks of fire safety, so that they themselves can educate the public when interacting with them on site on how serious a threat this issue is.



Waste:
Where does it come from?

During the contract year April 2023 – March 2024, the amount of contract waste that came through both facilities totalled 172,569 tonnes a 3.6% increase on the previous year's 166,539.

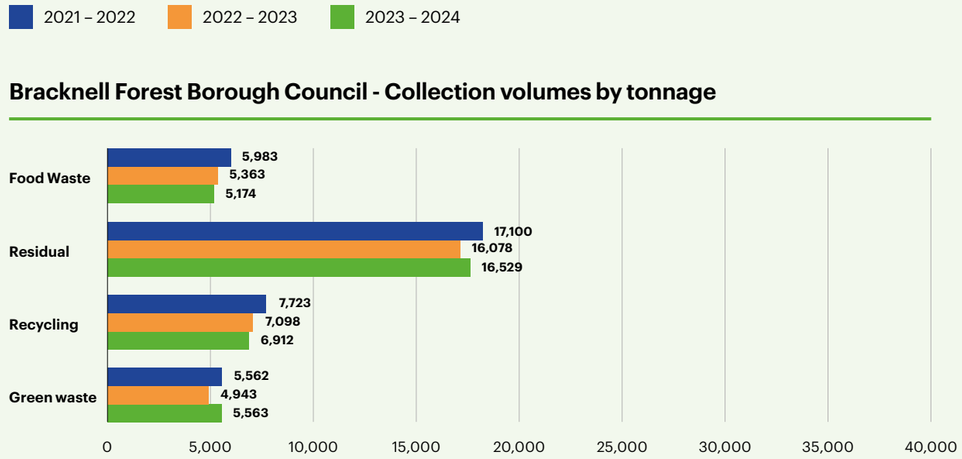
The waste streams that experienced a rise in tonnage compared to the previous year were:

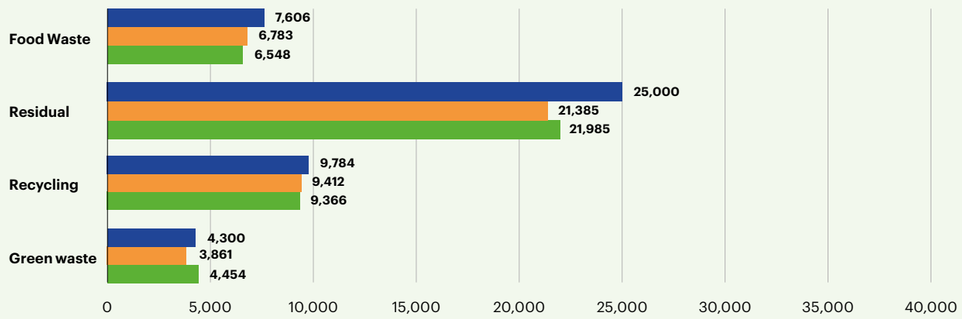
- Green waste tonnages increased by 16%, this follows the trend of many other local authorities who experienced similar increases. This increase is as result of last year's weather, where we experienced much more rainfall, causing vegetation to grow much quicker than the previous year when there were long periods of drought.
- Residual and MDR material only experienced small increases, 3.5% and 1% respectfully.

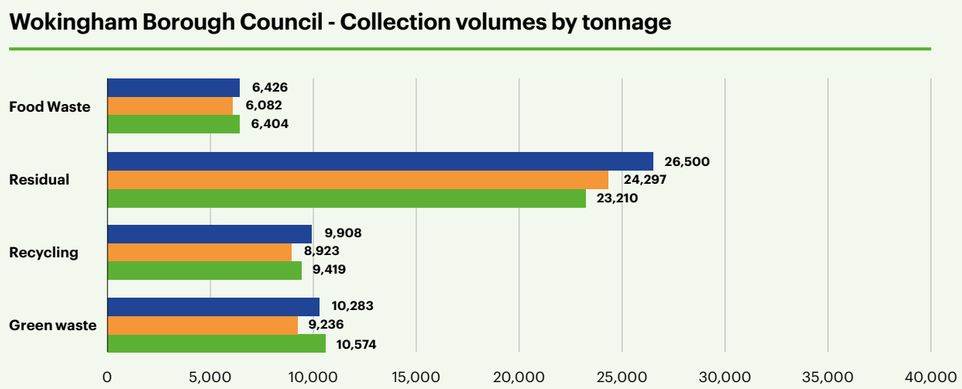
From the kerbside collections the only material that witnessed a decrease albeit only by 1% was food waste. Even though it is such a minor change the cost-of-living crisis is likely to contributed to this as people have less money therefore are purchasing much more considerately.

Recovery Rate

The recovery rate for the contract year which includes all waste sent for recycling, EfW, reuse, composting, and beneficial use amounted to **95.3%** of the total material processed through both re3 facilities. This is an incredible achievement, as it is the greatest ever amount recorded for the whole contract, highlighting the strength and effort of the whole re3 team in minimising its environmental impact!







Recycling Centres

DIY Charges

Under the updated Controlled Waste Regulations 2023, from the 31st of December 2023, HWRCs had to offer residents the ability to dispose of up to 100 litres of 'DIY waste', or one bulky sanitary unity, free of charge, at a maximum frequency of four visits over a four-week period. The rubble, soil, plasterboard and asbestos brought in to re3 will still be assessed by the meet and great teams at both sites, and any waste that exceeds the 100 litres will be chargeable at the previous rate. This does not apply to commercial traders.

Coffee Pod Recycling

In the summer re3 began a trial collecting coffee pods at both recycling centres working with Podback, a not-for profit recycling scheme, created by the UK's leading coffee pod brands, Nescafe Dolce Gusto, Tassimo, and Nespresso. The pods are sent to specialist plants where they are shredded to remove the coffee which is sent for Anaerobic digestion to create renewable energy and fertilizer. After the plastic pods are shredded, they are melted and used in injection molding, and like the plastic, the aluminium is smelted down and is used to make new products, from packaging all the way to building and car components.

Sue Ryder

Sue Ryder is a British Charity who provide bereavement, neurological and palliative support to friends and families as well as individuals who are experiencing end of life care. Since 2011, re3 have worked with Sue Ryder donating reuse items from the designated areas at both Longshot Lane and Smallmead recycling centre reuse bays. The public are encouraged to donate any items that could still have a second home, such as vinyl, furniture, Bric a Brac and bikes. These items and then collected by Sue Ryder and taken to their shops at Shinfield and Sandhurst and sold to raise money for the charity.

"Thank you for your much valued continued support. For last year we raised £8,022 from all the recycled items from RE3 going into our 2 shops - Shinfield & Sandhurst. This much needed income goes towards our goal at SR which is to provide palliative care & bereavement support. Please pass on our sincere thanks to all of your team, I know how hard they work every day & your support is helping us immensely." – Jane Bullen – Sue Ryder Manager

Sue Ryder palliative, neurological and bereavement support

re3paint Community Paint Reuse

Paint scheme

During the contract year we received just over 50 tonnes of both water and oil-based paints through the two recycling centres. The re3paint scheme allows residents to donate their partially used water-based paints for reuse. When the paint is dropped off at site the team inspect it to ensure that there is a reasonable amount and that it is in good condition. The scheme allows residents and community groups to pick up free paint whilst at the same time helping to reduce unnecessary paint waste and its impact on the environment. This year the re3 paint scheme had another successful year, with 1,483 paint containers, 7.1 tonnes of paint being taken for reuse by members of the public and community groups.





Total amount recycled
7.1 Tonnes of paint
1,483 containers

65%

It is estimated that 65% of discarded paint is still in usable condition. To prevent this waste, re3 has launched re3paint – a Community Paint Reuse initiative

Trade Waste Scheme

Both facilities at re3 give the chance for Small and Medium Sized Enterprises (SMEs) to dispose of their non-recyclable material for a fee and the recyclable material for free. The scheme was introduced in 2019, with the purpose of providing small local businesses in the area the opportunity to dispose of their waste legitimately and conveniently where they may not otherwise have a suitable outlet to do so. At present there are 100 SMEs on the trade waste scheme with businesses from carpenters and gardeners to dentists, and there are also a number of applicants on the waiting list ready to join. To join the scheme, or at present the waiting list, the business should have no more than ten employees, operate predominately in the re3 area and have a waste carriers' licence.

Waste:
Storage and Transport

Both re3 facilities are home to a transfer station and a recycling centre.

Longshot Lane, Bracknell

The site at Longshot Lane receives material from the Bracknell Forest and Wokingham collection teams who deposit a range of material at the transfer station. This facility can house up to 100,000 tonnes of waste and recycling per year. The MDR that is collected at site is later transported across to Smallmead MRF where it's processed into its separate recycling streams. Further to this, the facility at Longshot Lane can be used as an additional storage facility, should Smallmead reach full capacity during busy periods.



Smallmead, Reading

The transfer station at Reading is significantly larger than the Longshot Lane facility and can hold 200,000 tonnes of waste per year. The need for such size is because all three councils can deposit the residential waste here, as well as street sweepings, food, glass and municipal solid waste (MSW) that is collected in the re3 area. Further to this, the facility at Reading is also home to the MRF, which processes the Mixed Dry Recycling (MDR). The outputs are distributed to various processors all over the UK making the site extremely busy.





8,211

re3 collected 8,211 tonnes of glass, a 2.3% decrease in the amount received in the previous year collection.

Glass

Currently in the re3 area, glass collections from the kerbside is not provided by any of the three councils, therefore the provision of bottle banks and their collections is a crucial part of the service re3 provides. In total we have 137 bottle bank locations and 575 separate bottle banks. Bracknell Forest has 173 bottle banks across 44 locations, Reading Borough has 204 banks at 48 locations and in Wokingham Borough there are 198 bottle banks across 45 locations.

Previously, glass was collected separately by colour, however, in more recent years it has been collected together making recycling much easier for the residents. This new system also allows re3 to rationalise containers and optimise collection schedules, which can help to reduce costs, overflows, and its carbon footprint. By mixing the collection of glass, it has minimised the chance of banks overflowing, and means fewer trips are required for the emptying of banks, so no unnecessary journeys are made. We have also increased the efficiency of our bottle bank collections by calculating quicker, more efficient collection routes for our drivers, ensuring our fuel consumption and emissions are low, through the use of MOBA software. The program enables us to generate bottle bank collection routes with maximum efficiency, minimising the distance, therefore reducing our environmental impact. It also enables us to track the bottle bank collections, records weights of the banks and their location, as well as any incidents. Therefore, by monitoring the bottle bank collections through MOBA, we can continuously review the collections, identifying any issues quickly, and optimise the routes used maintaining an efficient and reliable bottle bank collection service.

During the contract year re3 collected 8,211 tonnes of glass, a 2.3% decrease in the amount received in the previous year collection. The busiest month during the contract year, was January which comes as no surprise as it is the post-Christmas and New year period.



Waste:
How we deal with it

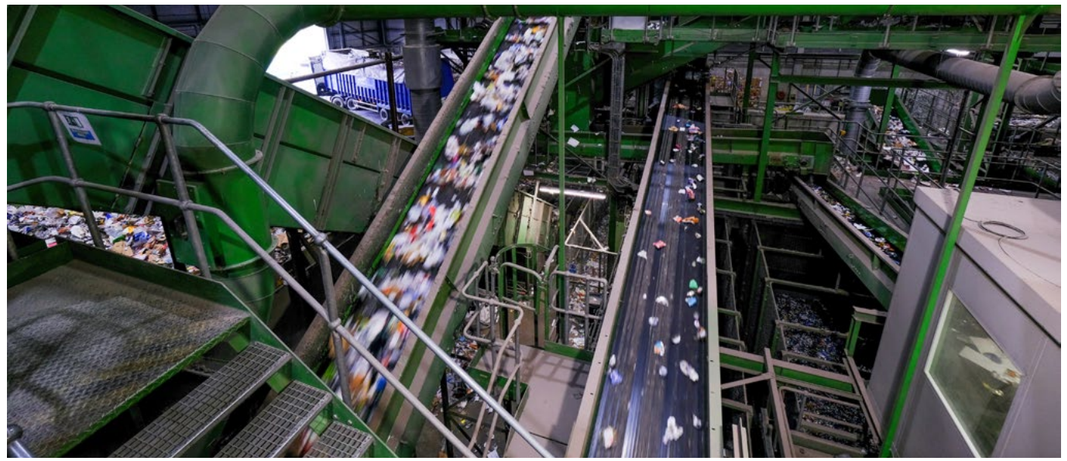
Hopper	Waste is collected from the input bay and tipped into the hopper
Pre-Sorting	Non-recyclable items are removed from the belt
Trommel	A rotating drum segregates the large and small items
Disc Screen	Items which are too small to be processed are removed (including glass)
Air Knives	Air knives and sensor band sorting equipment removes 4 types of plastic, 2 types of fibre and paper
Eddy Current Separators	Electric current removes aluminium
Over Band Magnet	Sorts steel cans
Robot	Picks, segregates and removes any contamination from our plastics streams
MRF Picking Team	Any items which are not suitable for recycling are removed by our team
Baler	Bales the material ready for distribution

The MRF: (Materials Recycling Facility)

In 2023 the MRF at re3 turned 15 years old, and still performed extremely well, processing 25,697 tonnes of household recycling during the contract year, this is a 1% increase on the previous year's recycling tonnages of 25,432. It is important to note that since the MRF commenced operation back in 2008, the composition of Mixed Dry Recycling (MDR) sorted by the machine has changed drastically, which is down to both societal trends as people have become more environmentally conscious thus willing to recycle, and the change in material composition as the cost for resources increase producers have reduced the amount of material used. Together this means that the volume of material is gradually increasing yet the weight is steadily decreasing.

All of the recyclable kerbside collection material in the Bracknell Forest, Reading and Wokingham Borough councils is run through the MRF at Smallmead. Annually the MRF can process up to 60,000 tonnes of Mixed Dry Recycling (MDR), through the mechanical and manual processes. Currently these are newspaper and pams (pamphlets), cardboard, steel cans, plastic bottles, plastic pots tubs and trays, paper, aluminium cans, and aerosol cans. All the material aside from the news and pams and Mixed Paper is baled into the separate streams before being inspected and loaded on to lorries for onward recycling. Any material that can not be recycled is separated out from the recycling during the process, and is sent to Energy From Waste (EfW).

Prior to material entering and leaving the MRF it is continuously monitored through sampling. This process allows re3 to analyse how well each of the three councils are recycling and identify if there are any issues in the public's recycling performance such as increased contamination (non-target recycling which is material the offtaker does not want). Sampling and monitoring of the material the MRF processes is a form of quality control. During the sampling, material is monitored for moisture content. If this is too high it can lead to rejection as it becomes extremely difficult to undergo mechanical treatment. If there is a reduction in output quality most often, we will re-run the material to reduce contamination, and investigate the plant to identifying any potential maintenance issues impacting on quality.





Cardboard, Mixed Paper and News & Pams (Fibre)

Over the year the MRF processed 1,175 tonnes of News and Pams, 9,059 tonnes of mixed paper and 3,671 tonnes of card, all together amounting to 13,905 tonnes. Each of the material tonnage have decreased on the previous years totals, the mixed paper and card had small decrease, however the most notable reduction was in the news and pams, which can be attributed to the decline in the amount of newspapers sold as more and more people move to online news channels.

13,905

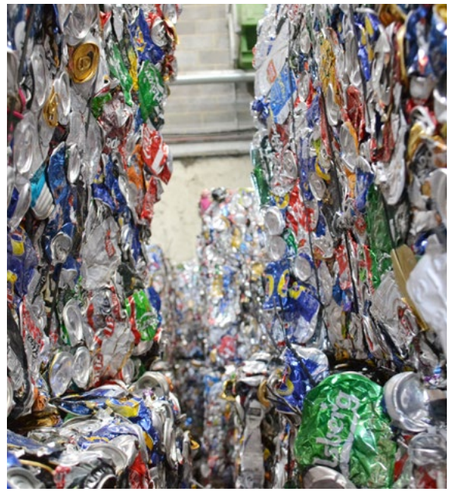
Over the year the MRF processed 1,175 tonnes of News and Pams, 9,059 tonnes of mixed paper and 3,671 tonnes of card, all together amounting to 13,905 tonnes

Plastics

Within the MDR there are 4 types of plastics that are segregated for offtake that accounted for 3,483 tonnes: the most common is PET Clear (Pop Bottles), 1,652 tonnes; then PTT (Mixed Pots, Tubs and Trays), 919 tonnes; followed by HDPE Jazz (Detergent Bottles), 490 tonnes,and finally HDPE Nat (Milk Bottles), 422 tonnes.

Most plastic that leaves the facility undergoes a similar recycling process to one and other, where they are further sorted into the material grades where they are then washed and either bailed or shredded to make pellets which in turn are used in the production of new plastic products.





Aluminium and Steel Cans

Compared to the previous contract year there was very little change in the total tonnages of metal components within the MDR, with a 2% increase in the amount of Aluminium and 4% decrease in steel.

The Steel and Aluminium which is separated in the MDR undergo similar treatment, once they have reached the offtaker destination, which consisted of further screening through trommels to remove any remaining contaminates, and they are then re-baled and sent for smelting to make new products.

Transport of Waste

Green Waste



The kerbside collections from the councils green waste are either brought to Longshot Lane or Smallmead for storage where it is combined with green waste from the recycling centres

Green waste is transported to Sutton Courtenay Compost Pad

Green waste is composted in open windrows. It is then brought back to site and is either sold to the public or donated in the community scheme

Residual Waste

Each council collects residual waste from the kerbside and brings it to Longshot Lane or Smallmead transfer station

The majority of residual waste goes to Lakeside EfW to product renewable energy

If waste is not suitable for EfW then it will be taken to FCC Sutton Courtenay

Food Waste

Food waste is collected separately from the residual waste and is brought to the Bracknell or Reading transfer stations

This waste is transported to Severn Trent Green Power Anaerobic Digestion Facility in Oxfordshire for processing

The digestion facility produces biogas (methane) and compost. Biogas is used to create electricity and the compost is used as fertiliser

MDR



MDR from the kerbside is brought to Bracknell and Smallmead transfer stations

MDR is processed in the Smallmead MRF

The processed material is either baled or remains loose to be collected by offtakers for reprocessing into new material

Waste Upholstered Domestic Seating (WUDS)



WUDS material is brought to the recycling centres by the public. It is stored separately from other waste

Material is transported to FCC Sutton Courtenay transfer station where it is shredded. It is then transported back to Smallmead

Shredded WUDS waste is mixed with black bag waste before being sent to EfW

Rigid Plastics



Rigid plastics are brought to Bracknell and Reading recycling centres by the public and stored separately

Rigid plastics are collected by an offtaker

Offtakers reprocess them to be made into new material

Waste:
What happens to it?

To ensure full duty of care at re3, offtakers of material are subject to a rigorous audit process. Prior to any material leaving site, offtakers must provide a range of information from environmental permits and waste carriers licenses to the process the material will undertake at the facility and where the material will end up following further treatment. Once we have commenced trading with an offtaker, we will follow the desktop audit up with a site visit so we can see how the material is stored and prepared for onward processing. This is to ensure material is recycled and that we do our upmost to protect the environment.

Energy from Waste: Lakeside

Energy From Waste (EfW) facilities are an alternative waste management process to landfill. Rather than burying our residual waste, it undergoes combustion in order to produce electricity. Heat is generated by burning waste reaching temperatures of 1000 degrees Celsius which is then used to produce high pressure steam for the turbine.

The use of EfW allows us to move waste up the waste hierarchy, thus diverting waste from Landfill, and at the same time producing green energy that can be used to heat homes and businesses in the local area. To ensure EfW facilities have a controlled and limited impact on he environment they are heavily monitored by the Environment Agency and all gases released during combustion are treated and filtered to remove particulates and harmful gasses before being released through the stack.

At re3, we send our Municipal Solid Waste (MSW) to Lakeside EfW, which is a facility at Lakeside Colnbrook. The plant is a joint venture between Grundons Waste and Viridor, two of the UK's largest waste management companies. This EfW is designed to process 440,000 tonnes of waste annually and generate a gross output of 40 MW of electricity through a steam turbine.

This electrical energy is enough to provide power to circa 55,000 homes. Between April 2023 and March 2024 re3 supplied approximately 60,000 tonnes of waste to Lakeside which generated 14,136 MWh of power that was supplied to the national grid.

Food Waste

Food waste kerbside collection is a weekly service provided by each of the collection teams in the re3 area, and the material is brought to both transfer stations. From here it is collected by Grundons who transport the waste for Severn Trent Green Power who operate an anaerobic digestion plant in Oxfordshire. The total tonnage for the contract year was 18,126 tonnes of food waste, which remained constant with the previous years tonnage of 18,228.

Anaerobic digestion is a process that breaks down food waste and in turn produces biogas for energy production and compost/fertiliser type products. The first step of the process is to remove any contaminates, it is then placed in vessels with bacteria, and an Anaerobic environment is produced (Oxygen Starved). As the bacteria consumes the food waste, the produced biogas that is rich in methane is then used to generate renewable heat and power.
As part of the process the solid content of food waste falls to the bottom of the digestion chamber and this is used as a nutrient-rich organic fertiliser.

From the total food waste collected from re3, Severn Trent Green Power were able to produce 3,m3 of biogas, in turn generating 8146.26 MWh of electricity. This equates to enough energy to boil 814,626 kettles, provide 814,625,760 hours of lightbulb use, or to power 2809 homes for a whole year. Not only this, but it also produced 25,010.44 tonnes of fertiliser, which is supplied to farms and business.
One of the greatest benefits of Anaerobic Digestion is the prevented carbon in helps from being released into the atmosphere. If the food waste from re3 were sent to EfW it would emit 3,783 tonnes of CO2 and if it were to go to Landfill 15,922.67 of CO2.



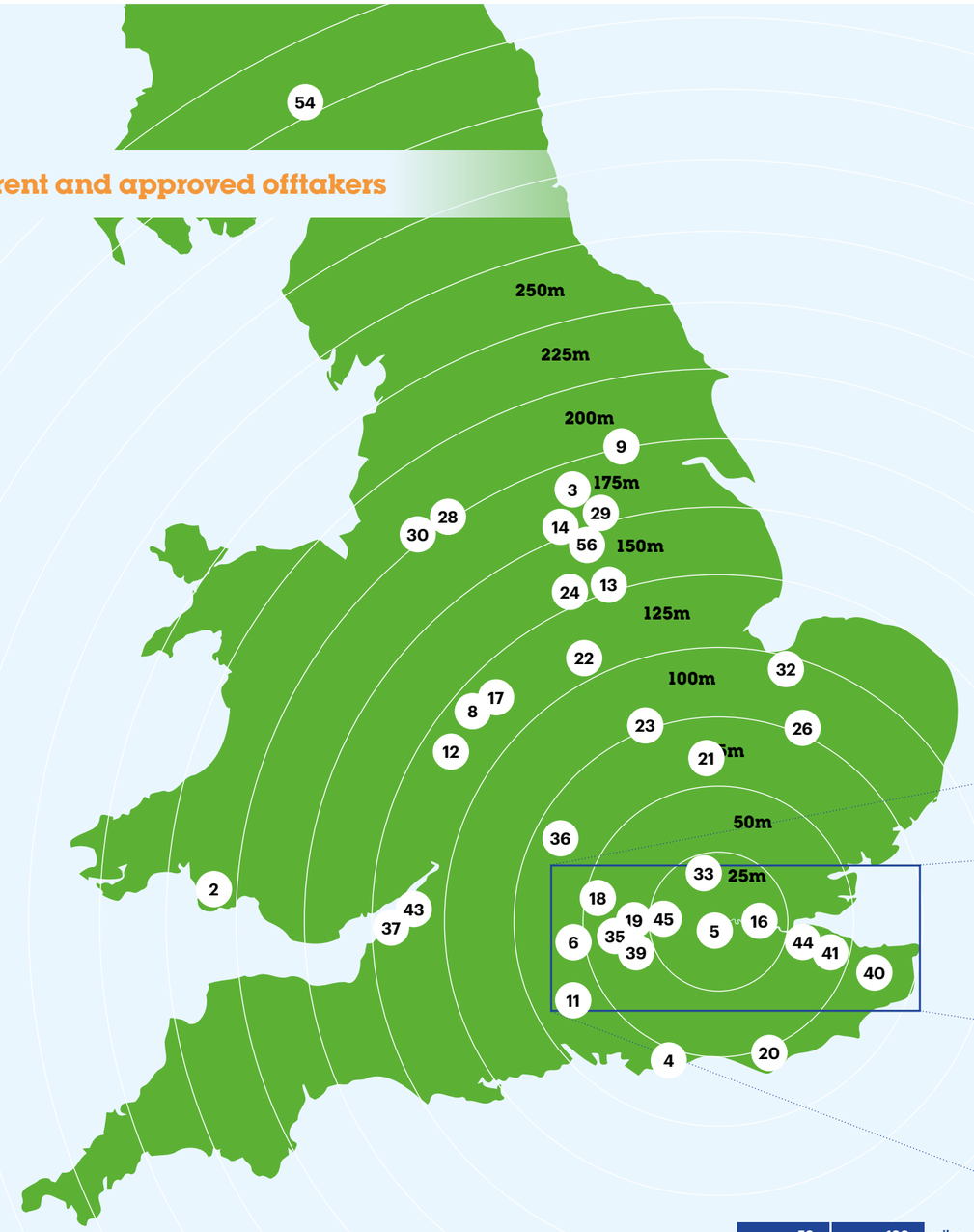
Flex Collect

At the end of summer 2023, we began a new trial as part of the Flexible Plastic Fund ‘FlexCollect’ project, collecting Flexible plastic such as bags, crisp packets, and film packaging from the kerbside. The purpose of the project is to inform government and the relevant industry how this material should be incorporated in the existing household recycling collection services, whilst moving waste up the waste hierarchy.

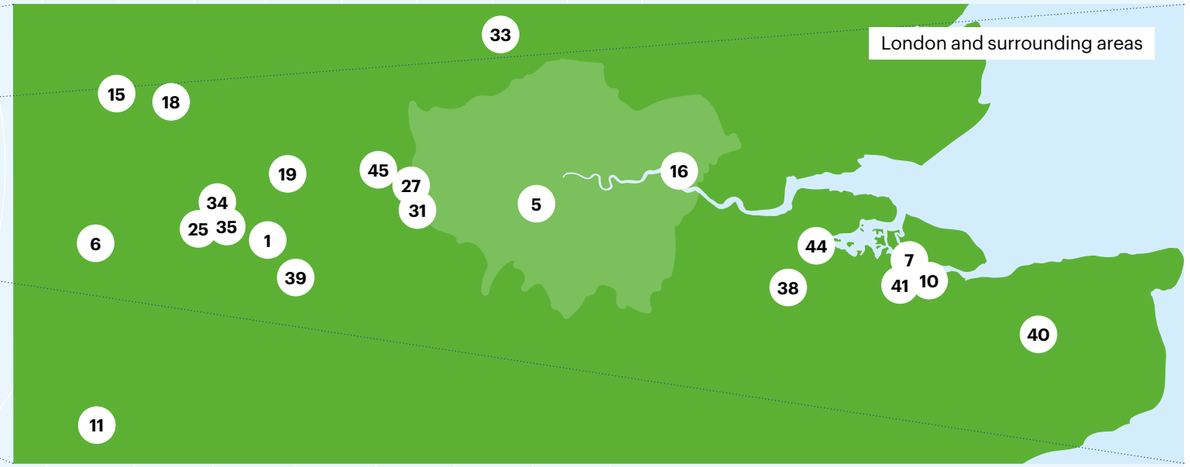
Currently there are 4000 homes in Reading and 10000 homes in Bracknell that have been selected to partake in the trial.

Each home in the trial area has received blue bags which they can place in their recycling bin once full. The trial encompasses a range of housing types, and those chosen to participate have received information on how to use the new plastic bags and wrapping collection service. Ultimately, the re3 trial will involve 20,000 households, when the trial area in Reading expands in June 2024.
The plastic collected from this trial will be utilised to manufacture new plastic products such as boxes, bins, “bags for life”, as well as agricultural and construction materials.

Current and approved offtakers



1 A1
2 AMG
3 Berrymans
4 BCMY Ltd
5 Calor Gas
6 Computer Salvage
7 Countrystyle
8-9 Credential Environmental
10 DS Smith
11 Ecogen
12 Eco-Oil
13 Enva
14 FCC Blackburn Meadows
15 FCC Environment Sutton Courtenay Composting Facility
16 Flogas
17 G & B Batteries
18/19 Grundons
20 Haulaway Ltd
21 Invixon
22-24 J & A Young
25 J Mould
26 Living Fuels Ltd
27 Lakeside
28 Mercury Recycling
29 Morris Metals
30 Novelis
31 Oakleaf
32 Palm Paper
33 Pearce Recycling
34 Precycle
35 Select Environmental
36 Severn Trent Green Power
37 Sims
38 Smurfit Kappa
39 Sue Ryder
40 Synergy
41 Sweep (Repic)
42-44 Viridor
45 W.N. Thomas & Sons Ltd
46 UPM (1) - UK
47 UPM (2) - Germany *
48 UPM (3) - Asia *
49 VG Recycling (1) Netherlands *
50 VG Recycling (2) - Vietnam *
51 VG Recycling (3) United Kingdom
52 WPT - Netherlands *
53 Ekman - Germany *
54 Newport Paper (1) - United Kingdom
55 Newport Recycling (2) Netherlands *
56 Promet



* Not shown on map

Offtaker Information

No.	Company	Market	Recovered from	Postcode	End Market Locations
1	**A1**	Batteries: Car/, Metal (Scrap Ferrous), Metal: Non-ferrous, Wire Copper, Metal/Wire	HWRC/MRF	RG41 4SP	UK
2	**AMG**	Steel Cans	HWRC	SA15 2HD	UK
3	**Berrymans**	Glass	Bring Banks/HWRC	WF9 3NR	UK
4	**BCMY Ltd**	Ink Cartridges	HWRC	BN17 7QU	UK
5	**Calor Gas**	Gas Canisters	HWRC	SW18 1EG	UK
6	**Computer Salvage**	WEEE (Small)	HWRC	RG14 5EY	UK
7	**Countrystyle**	Plasterboard, Wood	HWRC	ME9 8SR	UK
8	**Credential Environmental**	Tyres	HWRC	WS10 7BG	UK
9	**Credential Environmental**	Tyres	HWRC	YO8 6DH	UK
10	**DS Smith**	Mixed Paper	MRF	ME10 2TD	UK
11	**Ecogen**	Card (Loose)	MRF	SO21 2RP	UK
12	**Eco-Oil**	Oil	HWRC	DY13 9BZ	UK
13	**Enva**	Oil	HWRC	NG22 8UA	UK
14	**FCC Blackburn Meadows**	Paint/Chemicals	HWRC	S9 1HF	UK
15	**FCC Environment Sutton Courtenay Composting Facility**	Green Waste	HWRC	OX14 4PW	UK
16	**Flogas**	Gas Canisters	HWRC	RM13 8UH	UK
17	**G & B Batteries**	Batteries: Household	HWRC	WS10 8JR	UK
18	**Grundons**	Street Sweeping, Clinical Waste	TS	OX10 6LX	UK
19	**Grundons**	Street Sweeping, Clinical Waste	TS	RG10 9XY	UK
20	**Haulaway Ltd**	Rigid Plastics	HWRC	BN26 6QY	UK
21	**Invixon**	Street Sweeping	TS	PE19 5UH	UK
22	**J & A Young**	Plastics	MRF	LE11 5ST	UK
23	**J & A Young**	Plastics	MRF	NN18 9EY	UK
24	**J & A Young**	Plastics	MRF	DE55 2DT	UK
25	**J Mould**	Soil	HWRC	RG30 3XN	UK
26	**Living Fuels Ltd**	Cooking Oils	HWRC	IP26 4JQ	UK
27	**Lakeside**	MRF Rejects	MRF	SL3 0FE	UK
28	**Mercury Recycling**	Fluorescent Tubes	HWRC	M17 1HW	UK
29	**Morris Metals**	Steel Cans	MRF	DN11 0PS	UK
30	**Novellis**	Aluminium Cans	MRF/HWRC	WA4 1NP	UK
31	**Oakleaf**	MRF Rejects	MRF	TW19 6AF	UK
32	**Palm Paper**	News & Pams	MRF	PE34 3AL	UK
33	**Pearce Recycling**	Mixed Paper	MRF	AL4 0JY	UK
34	**Precycle**	Bric-a-Brac, Textiles/Shoes, Books/ Media, Bicycles, WEEE (Small), Tvs/PCs	Bring Banks/ HWRC	RG30 1EA	UK
35	**Select Environmental**	Asbestos	TS	RG2 0QX	UK
36	**Severn Trent Green Power**	Food Waste	TS	OX7 4EB	UK
37	**Sims**	WEEE (Large)	HWRC	BS11 9BT	UK
38	**Smurfit Kappa**	Mixed Paper	MRF	ME6 5AX	UK
39	**Sue Ryder**	Bric-a-Brac, Bicycles	HWRC	GU47 9DU	UK
40	**Synergy**	Gas Canisters	HWRC	CT4 7BA	UK
41	**Sweep (Repic)**	Fridges/Freezers, TVs/PCs	HWRC	ME10 2QB	UK
42	**Viridor**	Plastics	MRF	ME2 4NF	UK
43	**Viridor**	Plastics	MRF	BS11 0YU	UK
44	**Viridor**	Plastics	MRF	ME2 4NF	UK
45	**W.N. Thomas & Sons Ltd**	Metal: Non-ferrous, Wire Copper, Metal/Wire	HWRC/MRF	SL1 3QR	UK
46	**UPM**	Mixed Paper, News & Pams	MRF	UK	UK
47	**UPM**	Mixed Paper, News & Pams	MRF	Germany	Germany
48	**UPM**	Mixed Paper, News & Pams	MRF	Asia	Asia
49	**VG Recycling**	Mixed Paper, Card (Baled), Card (Loose)	MRF	Netherlands	Netherlands
50	**VG Recycling**	Mixed Paper, Card (Baled), Card (Loose)	MRF	Vietnam	Vietnam
51	**VG Recycling**	Mixed Paper, Card (Baled), Card (Loose)	MRF	UK	UK
52	**WPT**	Mixed Paper, Card (Loose)	MRF	Netherlands	Netherlands
53	**Ekman**	Mixed Paper, Card (Baled)	MRF	Germany	Germany
54	**Newport Paper**	Mixed Paper, Card (Baled), Card (Loose), Plastics - Plastics stay in the UK	MRF / HWRC (Paper & Card)	UK (Plastics)	UK (Plastics)
55	**Newport Paper**	Mixed Paper, Card (Baled), Card (Loose), Plastics - Plastics stay in the UK	MRF / HWRC (Paper & Card)	Netherlands	Netherlands
56	**Promet**	Ali Cans	MRF	S25 3AF	UK/Greece

Website

During the contract year April 2023 – March 2024 the re3 website has had over 268,000 visits, to not only make bookings for visits to recycling centres but to find an array of information. The most popular pages throughout the year were “re3 helping you waste less and recycle more” with 257,000 visitors. The page provides information on what can and cannot be recycled, links to the booking system and the latest news on re3 projects. Following this, it was “re3 recycling centres” which shows locations and opening times of both sites, and this has 175,000 views.

During the year, we introduced the virtual tours page which saw an increase in the amount of footfall on the website. As previously mentioned, the scheme allows residents the opportunity to explore Bracknell and Reading Recycling Centres and the re3 Material Recycling Facility through immersive 360˚ views, accompanied by images, videos and interesting facts about the local waste management.







Energy and the Environment

Energy Consumption

The re3 Partnership is extremely committed to reducing its carbon footprint across both facilities, therefore it is imperative that energy is always used efficiently and effectively. At Smallmead we have an office block, transfer station and MRF that used a total of 1443 MWh over the year, and the Longshot Lane office block, outdoor recycling centre and transfer station used 166 MWh, in total across both sites 1609 MWh. It is important to note that both sites are powered by 100% renewable energy.

Carbon emissions are the greatest cause of global warming and climate change. To safeguard our planet for the future, FCC is committed to operating its facilities with minimal impact on the environment. Since the company set its baseline in 2019, in line with the Environmental Services Association sector strategy, we are very proud of our 28% reduction in carbon emissions. Our transition to a zero-emission grid electricity eliminated our Scope 2 indirect emissions, but we still have work to do. Our immediate focus is to transition our vehicles and fuel use to zero-emission sources and work with the government, our customers, and local communities to remove as much plastic as possible from the waste that ends up in our facilities. Aside from focussing on the absolute reduction in our carbon emissions, we continually strive to operate in a more efficient and responsible manner. For 2023, we can show that for every tonne of waste we processed on behalf of our customers, we emitted 0.14 tonnes CO_2e in comparison to 0.2 tonnes CO_2e in 2019. Additionally, due to the electricity we generate and our endeavours to increase recycling and re-use, for every tonne of waste we manage on behalf of our customers, we avoid 0.1 tonnes CO_2e on their behalf.

1609 MWh

At Smallmead and Longshot our facilities used a total of 1609 MWh across both sites

100%

Both sites are powered by 100% renewable energy

Landfill

In waste management the adherence to the waste hierarchy is paramount. Prior to waste entering the waste stream it is important that we minimise the amount of waste we create in the first place, however, subject to that being unattainable the next best thing is to reuse items. To achieve this at re3, we have reuse bays at both sites where the public can donate their unwanted items that are either sent to Sue Ryder for sale in their charity shops or Precycle, a local company who operate with many charity partners across the globe. Following this the next step is to recycle, then recover. Despite efforts to adhere to the hierarchy, some waste cannot be repurposed and therefore is disposed of in Landfill, in this case FCC Sutton Courtenay Landfill, based in South Oxfordshire. Ever since the beginning of the re3 partnership the landfill waste has decreased significantly, reflecting the commitment to minimising the environmental impact re3 has.



FCC Environment

Company Initiatives

The re3 facilities are operated and manged by FCC Environment, who are fully accredited with ISO 50001, 45001 and 9001, demonstrating their commitment to energy, health and safety and quality management. Regular audits are undertaken to ensure we remain compliant with statutory and regulatory requirements across these domains.

Employee Wellbeing: Wellnet

In recent years, the recycling and waste sector has become healthier and safer for everyone. At FCC Environment, we wanted to carry on that upward trend by supporting our 2,256 staff in all aspects of their life, so in 2023, FCC launched a new website to promote wellbeing. Through the page, hundreds of colleagues have already discovered a host of information on healthier lifestyles and mental health, and tips on topics ranging from household budgets to bereavement or divorce. To ensure the information is even more accessible, the website can be accessed via a QR code from any mobile device. Managers are also provided with a toolkit to support and signpost their workforce to the best advice, from coping with a traumatic event, to how to get the best nights sleep.

The campaign has had huge success and was shortlisted for Health and Safety initiative of the year in both the National Recycling Awards and the Letsrecycle Awards for Excellence, in only a few months since its launch.

five ways to wellbeing

- give
- be active
- take notice
- connect
- keep learning



FCC values

Environmental Commitment
Ensure what we do is environmentally and socially responsible

People Focus
Value, reward and motivate our team

Forward Thinking
Embrace change and prepare for the future

Doing the Right Thing
Secure our future by being better at what we do

Five-star Rating

For the fourth year running, FCC Environment has successfully demonstrated best practice, with a five-star Occupational Health and Safety Audit conducted by the British Safety Council. The audit measures performances against key health and safety management best practice indicators and includes a detailed review of over 60 component elements.

Not only this, FCC Environment won its third prestigious Sword of Honour from the British Safety Council and a Sword of Honour following a maximum fire-star audit at its Eastcroft Energy from Waste Plant.

Glossary

Air Knives
Air Knives direct pressurized air onto the surface of objects, usually as they move along a conveyor belt. They will separate the waste depending on size and weight

Anaerobic Digestion (AD)
Anaerobic digestion is a sequence of processes by which microorganisms break down biodegradable material in the absence of oxygen. The process is used for industrial or domestic purposes to manage waste or to produce fuels.

Average Recovery Rate
This is a contractual measure of the proportion of contract waste diverted to Energy from Waste, Recycling, Beneficial Use and Composting.

Bring Bank Sites
An alternative name for the community recycling sites provided by the local authority/contractor and charities, for convenient public access to recycling services. These sites often consist of different recycling banks for different materials.

BSI PAS 100
The British Standards Institution's 'Publicly Available Specification for Composted Materials' (PAS 100) sets a minimum compost quality baseline, upon which composters should build as appropriate to the product types and markets targeted.

Certifications
ISO 50001 - Energy Management
45001 - Occupational Health & Safety
14001 - Environmental Management
9001 - Quality Management

Composting
A natural process to recycle organic material into a fertilizer used to improve soil.

Contamination
Contamination occurs when non-recyclable items are placed in a recycling bag or bin, making it more difficult to process at the Materials Recycling Facility.

Contract Waste
Contract Waste is defined within the contract but broadly covers household waste collected by the councils or their agents, waste brought to and deposited of at the Recycling Centres by householders and industrial and commercial waste disposed of via the transfer station.

Disc Screen
The disc screen consists of rotating discs for separating wastes through the clearance between the discs depending upon the size and the weight of the waste while the wastes move on the rotation discs.

Environment Agency
The Environment Agency is a non-departmental public body, established in 1995 and sponsored by the United Kingdom government's Department for Environment, Food and Rural Affairs, with responsibilities relating to the protection and enhancement of the environment in England

Eddy Current
A tool used in a Materials Recycling Facility (MRF) to separate aluminium cans.

Energy from Waste (EfW)
Energy from Waste is the application of sound proven combustion engineering principles to a variety of technologies which reduce and sanitise the residual municipal waste fraction, after recycling and composting has taken place, in order to recover energy.

FCC Environment
(Formerly Waste Recycling Group (WRG)) Parent company of re3 Ltd. FCC Environment is one of the leading waste management services companies in the UK and the fourth partner of the re3 partnership.

HWRC
Household Waste Recycling Centre

Kerbside Collection
Kerbside collection is a service provided to households, typically in urban and suburban areas, of collecting and disposing of household waste and recyclables.

Landfill Site
Designed, controlled, and managed disposal sites for municipal solid waste spread in layers, compacted to the smallest practical volume, and covered by inert material applied at the end of each operating day.

Materials Recycling Facility (MRF)
A recovery operation that separates mixed materials into their individual streams before transferring them to repressors.

Mixed Dried Recycling
Dry Mixed Recycling is a broad term used to describe a range of different types of clean recycling waste that can easily be reused or reformed into other goods, products, or broken down into their core materials.

MRF Picking Team
Members of staff whose role is to remove items of contamination from the mixed dry recyclables on the conveyors in the Materials Recycling Facility.
Recycling Centre (HWRC) is a facility where members of the public can dispose of household waste and also often contain recycling points.

Municipal waste/ Municipal Solid Waste (MSW)
Municipal waste comes under the control of the Local Waste Disposal Authority and includes household waste and other wastes collected by a Waste Collection Authority or its agents.

Offtaker
The party who buys the product being produced by the project or who uses the services being sold by the project

Overband Magnet
Overband magnets are suspended over conveyors in the MRF to separate steel cans

Recyclables/Recyclate
Materials that still have useful physical or chemical properties after serving their original purpose and that can, therefore, be reused or remanufactured into new products.

Reprocessing
Series of operations that transform industrial materials from a raw-material state into finished parts or products

Social Value
Social Value measures the positive value businesses create for the economy, communities, and society.

Trade Waste
Trade waste refers to any form of industrial waste or materials that are leftover when something is built, manufactured or service is provided

Transfer Station
Transfer Stations are a where local waste collection vehicles and trades people disposing of commercial trade waste deposit their waste. The waste is held here prior to being bulk loaded into a transport vehicle and sent for reprocessing.

Trommel
The trommel screen is used to separate materials by size. The rotating drum rolls larger pieces over to allow all fines to flow down and through the trommel screen plates.

Waste Hierarchy
The “waste hierarchy” ranks waste management options according to what is best for the environment. It gives top priority to preventing waste in the first place. When waste is created, it gives priority to preparing it for re-use, then recycling, then recovery, and last of all disposal (e.g. landfill)

WEEE
Waste Electrical and Electronic Equipment

WUDS
Waste Upholstered Domestic Seating

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