

metroSTOR Webinar Summary and Transcript

Cleaner Estates, Better Recycling

Lessons from the Byker Estate Transformation

14.07.26

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metroSTOR Webinar **Summary**

Key actions:

- Residents in flats do want to recycle but the service must be convenient, reliable and easy to understand.
- The project collected 334,400 litres of recycling in the first six months, while 80% of surveyed residents supported the scheme and 79% said they were recycling.
- Recycling demand was substantially higher than expected, so future schemes should begin with a greater recycling share or be designed for rapid adjustment.
- Enclosed bin units were generally preferred to open screened areas because they reduced friction and were easier to use.
- Most residents living on upper floors will take their waste and recycling out to external deposit points when they leave the building in preference to using internal bin rooms.
- Location matters as much as capacity: residents tend to use bins on their natural routes and often choose the nearest available bin.
- Resident research should continue after installation. Real-time feedback allowed the team to change capacity, layouts, apertures and communications before confidence in the service was lost.
- Positive, specific communications are more effective than simply telling residents what not to do. Bin stores can also act as valuable communication spaces.
- Consider how bulky waste will be dealt with as part of any strategy, with clear signage and either collecting from residents' homes or temporary storage for items awaiting collection.
- The benefits extend beyond recycling. Reduced side waste and tipping costs released grounds-maintenance time for wider estate improvements.
- The core lesson is to treat communal recycling as a managed system combining infrastructure, service design, resident routines, communications and ongoing operational learning

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metroSTOR Webinar **Transcript**

Welcome and introduction

Nigel Deacon

Good morning, everyone, and thank you for joining us.

Today we are looking at one of the biggest challenges facing local authorities and housing providers: making waste and recycling work better for residents while creating cleaner, safer places to live. Across the UK, organisations are expected to increase recycling, improve food-waste participation, reduce contamination and tackle fly-tipping, all while managing tight budgets and rising service expectations.

The challenge is not simply to provide bins. It is to create infrastructure that residents find easy to use, that encourages the right behaviours and that performs reliably in demanding communal environments. Livvy, over to you.

Background to the Byker pilot

Livvy Drake

Thank you, Nigel. I will cover the background to the project, the resident and behavioural research, the communications work and the lessons for future schemes. We will then hear from Mark Whittaker of Karbon Homes about the wider project and take questions.

The pilot followed a resident consultation and a Community Pledge to act on the issues that mattered most locally. Residents identified waste and litter management, fencing, trees, green spaces and play areas as priorities. The bin project therefore sat within a much wider programme of estate improvement.

Byker is a large and architecturally significant estate in Newcastle. Its distinctive design creates practical challenges when retrofitting waste infrastructure, particularly because the estate is Grade II* listed. metroSTOR worked with the project team to install enclosed bin units and screened communal bin areas in a pilot zone, while Sustainable Sidekicks carried out research to understand what worked, what needed to change and how the approach might be rolled out more widely.

Before the pilot, the estate faced familiar problems: scattered wheelie bins, overflowing containers, side waste and fly-tipping from both residents and people coming onto the estate. The new infrastructure was intended to improve fire safety, increase recycling and create cleaner communal areas.

The pilot focused on Dunn Terrace and Headlam Green rather than attempting to redesign the whole estate in one phase. That created a genuine test-and-learn environment. The team could compare different types of bin area, observe how residents used them and refine the approach before committing to a wider rollout across the estate.

The pilot in numbers

Livvy Drake

During the pilot, 51 bin units were installed and four open bin areas were created. Existing bin cupboards were also upgraded. The project collected 334,400 litres of recycling in the first 6 months, equivalent to 304 full bins, and 82 additional bins were purchased for the new service.

Among surveyed residents, 80% were very or quite supportive of the scheme and 79% said they were recycling. We gathered feedback through doorstep interviews, a text survey and qualitative research with 12 residents over three months. Those 12 residents completed diaries and interviews, allowing us to track issues in real time rather than relying only on an end-of-project survey.

In total, 58 residents answered questions on the doorstep and 28 responded to the text survey. The three research methods served different purposes: the diaries captured detailed experiences over time, doorstep interviews provided a broader snapshot and the text survey reached people who were not at home during visits. Together, they gave the project team a more rounded picture than any single method could provide.

What residents taught us

Livvy Drake

The first important finding was that more people wanted to recycle than expected. There is often an assumption that people living in flats do not want to recycle, but the research did not support that view.

We also found that many residents preferred the external communal facilities to the internal bin cupboards on each floor. Even residents on upper floors often incorporated recycling into their normal routines, taking it out on the way to the shops, the car park or public transport. Only a small proportion used the internal cupboards for recycling, which raises the possibility of closing some of them in future.

The enclosed bin units were generally more popular than the open screened areas. The open areas were less convenient because residents had to move bins around or reach through small apertures. People also tended to use the nearest bin, even when it was already full, rather than walk to another one.

Ground-floor households were often less supportive because some had lost individual bins and now had farther to walk. For one parent, this meant either leaving a child alone or taking the child to the bin area. This is an important reminder that a scheme can improve conditions overall while making the service less convenient for particular groups.

Confusion about what could be recycled was similar to the rest of the UK, particularly around aerosols, foil and foil pouches. That points to a continuing need for clear, simple information.

A screened area may appear to provide the same capacity as an enclosed unit, but residents experience it differently. Having to pull out a heavy bin, move another container or reach through a small aperture creates friction. The project showed that usability is not a secondary issue: it directly affects whether people participate and whether they use the correct waste stream.

Real-time research and rapid changes

Livvy Drake

The diary research gave residents a way to report problems as they happened. They told us when bins were overflowing, when collections had been missed, where fly-tipping was occurring and where more recycling capacity was needed.

This enabled the team to make practical changes during the pilot. Apertures were added to make it harder to put general waste into recycling bins. Bin heights and internal arrangements were adjusted to reduce litter falling behind containers. CCTV was deployed around problem locations and recycling capacity was increased where demand exceeded expectations.

Before the pilot, some residents said the condition of the waste areas was demoralising and embarrassing when visitors came to the estate. They also complained about smells, particularly in summer. After the installation, residents described a '100% improvement', reported more positive conversations with neighbours and were surprised by how many people were recycling. However, they also made clear that some bag dumping and fly-tipping continued. The project was a major improvement, even if some elements remain a work in progress.

The real-time nature of the feedback was particularly valuable. If recycling bins remained full for several days, participating residents could quickly conclude that their effort was pointless. By increasing capacity and changing layouts while the pilot was still running, the team was able to protect confidence in the new service and demonstrate that resident feedback led to visible action.

What the survey showed

Livvy Drake

Survey results showed that 78.6% of respondents recycled regularly. A further 11.9% recycled occasionally. Support was also strong, with 57.4% very supportive and 22.1% quite supportive.

There were differences by age, although sample sizes were small. Younger residents were less likely to recycle, while some people aged 36 to 45 had tried recycling and then stopped. The broader pattern, however, was positive across most age groups.

Residents in flats were generally happier because they had gained better facilities. Some households that lost individual wheelie bins were less satisfied, even though they often acknowledged that the estate looked tidier. This distinction matters because different housing types create different barriers.

The demographic findings were treated cautiously because some age groups had relatively few respondents. Their value was not in labelling one group as 'good' or 'bad' recyclers, but in identifying where further engagement might be useful. The wider and more reliable message was that support and participation were strong across the pilot area.

Convenience, routine and distance

Livvy Drake

Convenience was one of the strongest themes. Residents supported the service because it made the estate cleaner and tidier, but they also used it because the facilities were easier to access.

The journey to the bin matters. Residents often took recycling out as part of another trip, rather than making a special journey. This means bin locations should be planned around actual movement routes, not just the shortest distance on a site plan.

We also learned that the first bin people encounter is critical. Those carrying general waste are less likely to walk farther, so placing general waste first may reduce contamination. Residents who have already separated recycling may be more willing to walk slightly farther.

Capacity must match behaviour. The project started with too few recycling bins, so they filled quickly. Some residents delayed recycling or left material because they could not reach the correct bin. Different areas then developed different patterns: some had excellent recycling quality, while others struggled with overfilling or contamination. Each location needed to be monitored and adjusted rather than treated as identical.

The estate could not be treated as a single, uniform environment. Household mix, walking routes, nearby houses, collection patterns and the visibility of each store all affected behaviour. A layout that performed well at one block did not necessarily work at another. This made regular observation and local adjustment essential.

Recycling bags and internal storage

Livvy Drake

Most residents used the reusable recycling bag supplied through the scheme, but some families found it too small. Because households often generate more recyclable material than residual waste, a larger bag may be more appropriate in future.

The research also challenged assumptions about internal storage. Residents on middle and top floors frequently used the external enclosed units. Only a small minority used the internal cupboards for recycling. That suggests external facilities can work well even for upper-floor residents when they are placed on natural routes and are easy to use.

The bag also supported the journey inside the home. It provided a visible prompt to separate recyclables and made it easier to carry loose materials to the communal area. Although simple, this kind of supporting item can remove friction between intending to recycle and actually depositing material correctly.

Communications and behaviour change

Livvy Drake

Residents received a start-on-site letter, a recycling pack, FAQs, a map, a reusable bag and follow-up communications. Houses that retained individual bins were given identification stickers so those bins would not be removed. Updates were also shared through newsletters, social media, school engagement and posters mounted on the bin stores.

The team is now trialling temporary floor stencils with messages such as 'More bins this way', 'Thank you for recycling' and information about the cost of dumping waste or the number of people fined.

The behavioural principle is important: positive messages usually work better than simply telling people off. Communications should reinforce the behaviour we want to see, for example, 'Thank you for doing your recycling' or 'Nine out of ten people use a bin'. This keeps participating residents motivated and makes good behaviour visible.

Negative messages can unintentionally normalise the problem. Saying that one in ten people litter focuses attention on the undesirable behaviour. Similarly, aggressive slogans may attract attention without improving behaviour.

Social norms are especially important in flats. In a street of houses, residents can see neighbours putting out recycling. In a block of flats, that behaviour is less visible, so communications need to tell people that others are recycling. Uncertainty should also be addressed directly using existing national materials on confusing items such as aerosols, foil and food packaging.

Temporary floor markings were chosen because messages could be changed as local behaviour changed. One site might need an arrow directing residents to spare capacity, while another might benefit from positive reinforcement or a clear statement about enforcement. Communications therefore became part of ongoing estate management rather than a one-off launch campaign.

Fly-tipping: a separate challenge

Livvy Drake

Bins alone do not solve fly-tipping. At Byker, there are two distinct groups: residents disposing of unwanted items, and external fly-tippers bringing waste onto the estate. The communications and enforcement response should be different for each.

For external fly-tippers, visible signage, movable cameras and location-specific messages can help. Residents with doorbell cameras may also be able to share footage. For residents, communications need to explain realistic disposal options and show that enforcement is taking place.

It is also useful to talk about 'dumping waste' rather than assume residents understand the council term 'fly-tipping'. When someone has an unwanted sofa, their immediate problem is how to get rid of it. If the official service requires them to move it down several flights of stairs or transport it themselves, the barrier is practical, not simply attitudinal.

The distinction between resident and external dumping also changes the tone of communications. A deterrent message and visible camera may be appropriate for someone arriving by vehicle, while residents need practical information about collection services, access arrangements and what to do if they cannot move a bulky item themselves. One message cannot address both audiences effectively.

Recommendations for future rollouts

Livvy Drake

The main recommendations are:

Start with a higher proportion of recycling capacity, or be ready to change the mix quickly. Use apertures and clear pictorial signs to reduce contamination. Minimise open screened areas, or design them so residents do not need to move bins around. Provide poster boards at each block and update the content regularly. Reinforce positive behaviour and use temporary floor markings where they can guide people to spare capacity or discourage dumping.

Most importantly, work with residents. Understand who they are, how they move through the estate, what prevents them from using the service and what motivates them. Those principles are transferable to almost any communal recycling project.

The broader lesson is to treat a pilot as a learning process, not simply as a smaller version of the final scheme. The objective is not to prove that the original plan was correct. It is to discover what residents actually do, what operational teams encounter and what should change before the approach is scaled.

Q&A with Mark Whittaker, Karbon Homes

Nigel Deacon

Mark, can you explain why Karbon Homes began this project and how it fitted into the wider investment programme?

Mark Whittaker

When Karbon Homes merged with Byker Community Trust, a commitment to invest significantly in the estate was carried forward. There was a great deal to address, including kitchens, bathrooms, fencing and external improvements.

We asked residents which issues mattered most. Waste management came first, alongside safety, CCTV, anti-social behaviour, play areas and tree management. Waste was the issue likely to make the biggest visible difference, so it became a major part of the programme.

Nigel Deacon

What is the scale of the estate?

Mark Whittaker

The estate has around 2,000 properties. Karbon manages approximately 1,890 of them, including about 700 flats within the Byker Wall. The remainder are mainly houses.

Nigel Deacon

What made the project particularly challenging?

Mark Whittaker

Byker is Grade II* listed, so all external work is subject to heritage controls. Even colours and finishes have to match the original design. The bin stores went through detailed consultation with the council, conservation officers and Historic England. The estate is very colourful, so the new structures had to feel as though they belonged there.

The flats also have internal communal bin cupboards on the landings. These contain service meters as well as waste, which creates fire-safety concerns. Newcastle City Council's concierge team empties those cupboards into the external stores. Ground-floor homes had individual bins, so some residents were understandably reluctant to move to a communal system.

The transition was also different for different residents. Some people in flats gained cleaner and more convenient facilities, while some ground-floor households lost an individual bin outside their home. The scheme therefore improved the estate overall without producing an identical experience for every household. That nuance was important in interpreting the survey results.

Nigel Deacon

Do you expect to remove the internal cupboards eventually?

Mark Whittaker

Possibly. We considered removing them at the same time as the external installation, but felt that would be too much change at once. The research shows that relatively few residents use them for recycling, so closure is something we can consider in future, while still supporting residents who need assisted collections.

Nigel Deacon

Has waste left in walkways reduced?

Mark Whittaker

Yes. Capacity was a major problem before. Bins could be emptied on a Friday and be overflowing again by Monday, so people left bags in communal areas knowing the concierge team would remove them.

In some locations we now have up to five times the previous capacity. That has reduced side waste, litter and vermin problems. The areas look tidier, and resident feedback has been very positive.

The difference was most visible at former hotspots where bags accumulated around already-full bins, were torn open by animals and then spread by wind. Removing that recurring overflow improved not only cleanliness but also the daily experience of walking through the estate and receiving visitors.

Nigel Deacon

Has the project changed how estate teams use their time?

Mark Whittaker

Yes. Our grounds maintenance team previously spent a lot of time collecting side waste, litter and some fly-tipping. Between April and December, tipping costs fell by about £5,200, nearly a 50% reduction compared with the same period the previous year.

The team also spends less time on waste clearance, which means it can carry out improvements that were repeatedly postponed, such as edging paths and improving landscaping. The benefit is therefore wider than the bin areas themselves.

This matters commercially because the benefit is not limited to lower tipping costs. Staff time previously consumed by reactive clearance can now be used for planned improvements that residents also notice. Cleaner waste areas and better-maintained paths, planting and communal spaces reinforce each other and strengthen the wider value of the investment.

Nigel Deacon

How has Newcastle City Council responded?

Mark Whittaker

The council's waste team has been very positive. Byker had been one of the most resource-intensive areas for the collection team, so they have noticed less side waste and a better-managed service.

We are now looking at extending the approach across the Byker Wall. Because the wall is around a mile long, the rollout will probably happen in three or four phases rather than all at once.

A phased rollout will allow the next stages to incorporate what has already been learned about capacity, assisted collections, communication, site location and future food-waste services. It also avoids repeating the same assumptions across a much larger area before they have been properly tested.

Nigel Deacon

What would you do differently next time?

Mark Whittaker

We underestimated recycling demand. We started with roughly an 80:20 split between general waste and recycling, but the recycling bins were overwhelmed almost immediately. In future I would start closer to 60:40 or even 50:50.

I would also front-load communications and involve residents earlier in detailed location decisions. On one part of Dunn Terrace, our original plan had three bin stores. Residents pointed out that nobody naturally walked past the middle location. They were right, so we redesigned the scheme as two larger stores on the routes people actually used. That saved us from installing the wrong layout.

The redesign at Dunn Terrace was a good example of consultation changing a material decision. Residents were not simply being asked whether they liked a finished proposal. They understood how people moved between homes, cars, the Metro and local facilities, and that knowledge led to two better-positioned stores rather than three less effective ones.

Nigel Deacon

Did smaller recycling apertures lead to bags being left outside?

Mark Whittaker

Not significantly once we adjusted the layout. Initially, recycling bins were positioned at the front and filled quickly. We increased capacity and moved recycling farther back, with general waste at the front. That reduced the temptation to put general waste into recycling.

Every bin store behaves differently. Some have excellent-quality recycling and no overfilling. Others need more intervention. There is no single configuration that works everywhere, so the team continues to monitor each location.

At some stores, residents fill the first few bins and leave capacity unused at the back. At others, recycling performs very well but general waste overflows, or the reverse occurs. These differences show why a successful communal scheme needs active management after installation rather than a fixed design that is never revisited.

Nigel Deacon

Are residents using the reusable blue bags?

Mark Whittaker

Yes. When we launched the first store, we saw a resident come down with a blue bag full of clean recycling and use the system exactly as intended. Going from almost no recycling to seeing that was a proud Dad moment. Not everyone is engaged, but many residents are using the bags correctly.

Bulky waste and fly-tipping

Nigel Deacon

How is bulky waste managed across the estate?

Mark Whittaker

Karbon does not currently provide a dedicated bulky-waste collection service, although Newcastle City Council does. The problem is that some residents cannot get a sofa or mattress down several flights of stairs or transport it to a collection point.

After the new bin stores were installed, fly-tipping became more concentrated around them. CCTV and enforcement reduced dumping at those locations, but some of it then moved back elsewhere on the estate. That is one of our biggest remaining challenges.

We are now considering whether a more proactive bulky-waste service would be better than dealing with the problem after items are dumped.

This highlighted the difference between managing everyday household waste and managing exceptional items. The new infrastructure made routine disposal easier and more orderly, but mattresses, sofas and large electrical items require a separate service response. Without that, enforcement may simply move the problem from one location to another.

Livvy Drake

This is why engagement matters. Residents may know that a council service exists, but it may not be usable for them. Older people, people without a car and residents in upper-floor flats face very different barriers. Understanding those barriers is essential before deciding that the problem is simply non-compliance.

Nigel Deacon

What resource does fly-tipping currently require?

Mark Whittaker

Because the Byker Wall is now classed as a high-rise, high-risk building, we have employed two people with a cage van to respond quickly to items left in communal areas. They also cover the wider estate. That means two salaries, vehicle hire and tipping costs, which contributes to an estimated annual cost of around £100,000 for dumped waste across Byker.

Food waste, contamination and CCTV

Nigel Deacon

Has food waste been included?

Mark Whittaker

Not yet, but we are planning for it. Newcastle has moved from separate glass collections to mixed recycling, which may free up space that could be converted for food waste. The service is still being trialled in parts of the city, so we do not yet know exactly how it will work for the flats.

Food waste will introduce new practical questions, including container size, collection frequency, odour control, liners and how residents carry material from their homes. The advantage is that the project has already established a process for involving residents, testing arrangements and adjusting the service based on evidence.

Nigel Deacon

Did the smaller recycling apertures reduce contamination?

Mark Whittaker

Yes. Newcastle City Council has reported that the recycling quality is much better.

Nigel Deacon

How are people identified from CCTV?

Mark Whittaker

Some cases are straightforward because people arrive by car and the registration is visible. Others leave packaging with names and addresses on it. Housing staff may also recognise someone from clear footage.

An external company manages the CCTV. If fly-tipping is discovered, we ask them to review a specific camera and time period, and they send the relevant footage back to us.

Final reflections

Livvy Drake

Although Byker is unique, the principles are widely transferable. Work with residents. Understand their daily journeys. Assume people in flats do want to recycle. Make good behaviour visible. Use positive communications and adapt the service when the evidence shows something is not working.

Bin stores are also valuable communication spaces. They can carry current, location-specific information about recycling, spare capacity, bulky-waste services and enforcement.

The transferable lesson is not that every estate needs the same number or type of enclosure. It is that successful communal recycling depends on the interaction between infrastructure, service design, communications and resident routines. If any one of those elements is ignored, the whole system becomes less effective.

Mark Whittaker

The project is still evolving, but it has already shown that residents will recycle when the service is convenient and reliable. The most important lesson is that customers are central to the design. They will tell you what will work and what will not.

Nigel Deacon

Thank you, Livvy and Mark, and thank you to everyone who joined and contributed questions. We will share the recording, slides and summary after the session. Please also let us know what topics you would like us to cover in future webinars.

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