

# REPORT

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## Lancaster Fly-tipping Interventions 2022

January 2023

Keep Britain Tidy is an independent environmental charity with three goals – to eliminate litter, improve local places and prevent waste.

We understand that we cannot reach our goals by working alone, so we work with businesses, schools, communities, individuals, government - local and national – and other charities and voluntary organisations.

We know that if people care for the environment on their own doorstep – the local park, the street in which they live, the river that runs through their area – then the environment, the community and the individual will all benefit. How can we expect people to understand and care about global environmental issues if they don't understand the importance of, or care about, their own local environment?

Keep Britain Tidy is a charity with a wealth of experience and expertise. We have been working and campaigning to eliminate litter, improve local places and prevent waste for many years. We want to share that experience and expertise with others, supporting businesses, communities, schools and government.

We fund our work by offering services and expertise to those who can benefit from them, by delivering accreditation schemes for parks, beaches, schools and public spaces and by developing relationships with partners in the corporate sector to support our research and campaign activities.

# ABOUT KEEP BRITAIN TIDY.

# REPORT RELEASE SHEET

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# 1 EXECUTIVE SUMMARY

1. Keep Britain Tidy worked with Lancaster City Council to scale two interventions to tackle fly-tipping which were originally developed in the London Borough of Newham.
2. The crime scene investigation (CSI) tape intervention is a feedback loop designed to break the expectation that fly-tips will be collected quickly and without repercussion, highlighting investigation and enforcement activity on street. The intervention involved leaving fly-tips in situ for five days, wrapped in CSI tape with an A4 sticker highlighting investigation/enforcement activity.
3. The social impact stencil (SIS) intervention is designed to tackle the perception of fly-tipping as low-impact by highlighting the social and financial impacts of fly-tipping through chalk paint stencil messages left behind where fly-tips have been cleared.
4. Both interventions were accompanied by communication with local residents about the correct disposal of waste with a posted letter.
5. Keep Britain Tidy provided Lancaster City Council with a bespoke package of support designed to help the council plan and deliver the interventions efficiently and effectively, and equip staff to run this programme of work in a self-sufficient manner in future.
6. The CSI tape intervention ran in 15 target streets, while the SIS intervention ran in 10 target streets. Displacement streets were also identified which are adjoining streets where incidents of fly-tipping could be a result of the intervention taking place nearby and fly-tippers avoiding the target area. Both interventions ran for 13 weeks from 16<sup>th</sup> May to 13<sup>th</sup> August 2022. A baseline was taken from already recorded fly-tipping data five weeks prior the start of the interventions, and five weeks subsequent to the intervention.
7. As the intervention period began, operational staff became enthused and started consistently recording black bags as fly-tips. This means that there is no comparable baseline data by which to establish the outcomes of the interventions. However if staff maintain this new consistent recording method, this may result in more accurate fly-tipping reporting figures.
8. Nonetheless, looking at how the total number of fly-tips per week across all intervention sites varied over the course of the intervention and post intervention periods shows positive results.
9. There is a clear trend of decreasing numbers of fly-tips per week in target streets as the intervention period progresses for both interventions:
  - CSI tape intervention – decreased from a high of 49 at the start of the intervention period to 20 by the end. This is a 59% reduction in the number of fly-tips seen in the first week of the intervention.
  - SIS intervention – decreased from a high of 75 at the start of the intervention period to a low of eight by the end. This is an 89% reduction in the number of fly-tips seen in the first week of the intervention.
  - Please note these statements represent the reduction in fly-tipping during the intervention period not an overall reduction.
10. At the end of the 13 week intervention there were a total of 96 fewer fly-tips across all 25 sites, if we assume these interventions are replicated in a further 25 sites per quarter, this could potentially result in a total of 384 fewer fly-tips in one year, diverting resources elsewhere.
11. There is a trend of a relatively consistent number of fly-tips in displacement streets as the CSI tape intervention progresses. This suggests that the CSI tape intervention did not drive fly-tipping to nearby locations, and that therefore fly-tipping was prevented. Conversely, there is a trend of the total number of fly-tips per week in displacement streets increasing slightly as the SIS intervention

progressed. This suggests that the SIS intervention may have resulted in some displacement of fly-tips.

12. In the post intervention period for both interventions, there is a trend of increasing numbers of fly-tips in target streets. However, the number of fly-tips per week for target streets is far lower than the peak number of fly-tips at the start of the intervention period for both interventions. This suggests that the interventions do have some lasting impact, but that this is time-limited.
13. Towards the end of the intervention period, 300 residents in target areas were surveyed door-to-door in order to assess perceptions in relation to interventions.
14. 39% of respondents in CSI tape areas said they saw the intervention, while 57% of respondents in SIS areas said that they saw that intervention.
15. 47% of respondents thought that the purpose of the CSI tape intervention was to stop people from fly-tipping, while 54% thought the same for the SIS intervention.
16. The majority of respondents agreed that the intervention shows the LCC is working to tackle fly-tipping – 75% in CSI tape areas and 68% in SIS areas.
17. Confidence in the effectiveness of the interventions was lower for SIS compared to CSI tape. 18% thought that the SIS intervention will result in less items of waste being dumped compared to 33% for the CSI intervention, while 14% thought that the SIS intervention will make them think twice about what to do with unwanted items in the future compared to 29% for the CSI tape intervention.
18. Feedback from operational and managerial staff about the support package surrounding the interventions was positive. Operational staff were also very positive about the difference that the CSI tape intervention had made in some of the most tough and heavily fly-tipped areas.
19. The SIS intervention was less well received by operational staff, which was supported by the perceptions survey. However, these views are not borne out in the fly-tipping data which suggests greater effectiveness of the SIS intervention compared to the CSI tape intervention.
20. A number of recommendations are presented for scaling the CSI and SIS interventions in Lancaster.
21. LCC will be provided with all presentations, documents and design files used in the project, and supplier details for the intervention materials to be able to take the interventions forward.

## 2 INTRODUCTION

Keep Britain Tidy is an environmental charity which aims to eradicate litter and reduce waste, improve the quality of public space and help people live more sustainably.

We develop and deliver high quality research, innovation and evidence-based services – to local authorities, government, and businesses – which contribute significantly to Keep Britain Tidy’s charitable aims.

Through our Centre for Social Innovation, Keep Britain Tidy is the only UK charity to take a systematic approach to applying behavioural insights to tackle litter and waste issues. The Centre focuses on understanding the root causes of these issues through high-quality behavioural insights research and uses this together with behavioural science to design and pilot behavioural interventions. We work together with private, public and third sector organisations, local authorities’ managerial and operational staff as well as communities, to design interventions which are cost-effective, measurable and practical to deliver. In this way, we ensure that the interventions we develop are scalable. To date, over 290 local authorities and other organisations have implemented one or more of our tested interventions.

In 2019-20, Keep Britain Tidy’s Centre for Social Innovation developed and robustly tested a series of interventions to tackle fly-tipping in partnership with the London Borough of Newham under the Better Streets programme.

Two interventions produced substantial reductions in the number of fly-tipping incidents:

- Crime scene investigation (CSI) tape intervention – leaving fly-tips in situ for a defined period of time, wrapped in CSI tape with a sticker highlighting investigation/enforcement activity, accompanied by communication with local residents and businesses about the correct disposal of waste.
  - This intervention achieved an average reduction in fly-tipping of 64% with no displacement.
- Social impact stencils (SIS) intervention – highlighting and social and financial impacts of fly-tipping through chalk paint stencil messages left behind where fly-tips had been cleared, accompanied by communication with local residents and businesses about the correct disposal of waste.
  - This intervention achieved an average reduction in fly-tipping of 67% with no displacement.

In 2022, Keep Britain Tidy sought to scale the CSI Tape and SIS Interventions by offering support to local authorities who would like to implement them as part of their work to tackle fly-tipping. Lancaster City Council (LCC) was one of the first local authorities to take up this offer. The package of support was bespoke, and was designed to help LCC plan and execute the interventions efficiently and to maximum effect, and equip staff with the expertise and skills needed to run the interventions without the need for ongoing support from Keep Britain Tidy.

This report presents the results of the interventions both in terms of fly-tipping data and residents perceptions, along with feedback from operational and managerial staff, which collectively inform recommendations for future implementation. This report is accompanied by a simple one page presentation of headline results for operational staff.

LCC will also be provided with all presentations, documents and design files used in the project, and supplier details for the intervention materials. LCC can continue to use the leaflets produced for this project, which are co-branded as Lancaster City Council and Keep Britain Tidy, as long as they are kept to the agreed design. Any future changes to the design will need to be approved by Keep Britain Tidy and we reserve the right to remove the cobranding.

### 3 SUPPORT PACKAGE

Keep Britain Tidy and LCC held an initial meeting remotely to discuss the insight led fly-tipping intervention work in November 2021. We worked together to tailor the CSI and SIS interventions to suit LCC's fly-tipping problem and outlined a timeline for the project.

In the weeks following the initiation meeting, Keep Britain Tidy supported LCC to review their existing fly-tipping monitoring system to identify hotspots to target and their associated displacement streets (streets adjacent to target streets where incidents of fly-tipping could be a result of the intervention taking place nearby and fly-tippers avoiding the target area). An in person workshop for key managerial staff from operations, enforcement and communications was held in March 2022 in Lancaster. The workshop had three main objectives: to better understand fly-tipping behaviour; to gain a clear understanding of the CSI and SIS interventions and what they can achieve; and to work through the practical considerations of delivering the interventions effectively in Lancaster.

Once the target areas were selected, Keep Britain Tidy delivered two similar in person workshops in April 2022 with all operational staff involved in both interventions, to not only ensure the CSI and SIS interventions were delivered effectively, but to also motivate and empower the crews to record fly-tips during the intervention and post-intervention period. This workshop included a drive-along with operational staff to locate local fly-tips to demonstrate and practice how to deliver both interventions. This workshop allowed Keep Britain Tidy to gain invaluable on-the-ground knowledge to solidify the target and displacement streets.

Keep Britain Tidy worked with LCC's communication team to design two leaflets for local residents and businesses which were co-branded as Lancaster Council and Keep Britain Tidy using the wording "*This leaflet has been produced in partnership with Keep Britain Tidy*". The leaflets are positive communications advising residents and businesses of correct waste disposal methods. Both leaflets were due to be distributed at the start of the intervention period, but due to time constraints they were not finalised in time. As a substitute, LCC created and distributed a letter to all residents in the target intervention areas at the start of the intervention period (see section 4.3).

Keep Britain Tidy also provided two briefing documents one for the communications team/contact centre and one for members, with answers to questions likely to be asked by residents and the media.

All the intervention materials for both the interventions were delivered to LCC before the start of the intervention period. Materials quantities were regularly monitored by LCC to ensure there was enough lead-time for any replenishing of equipment. Throughout the 13 weeks of the intervention, Keep Britain Tidy regularly kept in contact with LCC for any support.

After receiving positive feedback from the managerial and crew members about the interventions, Keep Britain Tidy organised a professional photographer to take photos of both interventions in action.

Near the end of the 13 week intervention period, Keep Britain Tidy designed a survey to establish resident perceptions in relation to each intervention. Keep Britain Tidy then worked with an external surveying organisation, Feedback Market Research, to carry out door-to-door surveying of three hotspots per interventions, a total of six locations, aiming for 50 residents surveyed at each hotspot. The three hotspots per intervention were perceived to be a higher, medium and lower impact hotspots. The perception surveys took place in August - September 2022.

Once the initial fly-tipping reporting data and the perception survey reports were analysed, Keep Britain Tidy conducted interviews with operational staff and key managerial staff in October 2022 to gather their feedback on how the interventions and the implementation process worked in order to inform future delivery.

# 4 INTERVENTIONS

## 4.1 CSI tape intervention

Keep Britain Tidy research into fly-tipping behaviour revealed that there is an expectation that fly-tips will be collected quickly and without repercussion. The CSI tape intervention is a feedback loop designed to break this expectation, highlighting investigation and enforcement activity on street. The CSI tape intervention involved leaving fly-tips in situ for five days, wrapped in CSI tape with an A4 sticker highlighting investigation/enforcement activity (see figures 1 and 2). If operational staff identified any hazardous waste such as bags containing food waste or broken glass, the fly-tips were removed. This intervention was accompanied by communication with local residents about the correct disposal of waste through a posted letter at the start of the intervention period (see section 4.3). Figures 3 and 4 show the CSI tape intervention in action.

Figure 1: Tape used in the CSI tape intervention



Figure 2: Sticker used in the CSI tape intervention



Figure 3: LCC Street Cleansing staff delivering the CSI tape intervention



Figure 4: LCC Street Cleansing staff delivering the CSI tape intervention



The sites for the CSI tape intervention were carefully selected; certain streets close to the coast were unsuitable for the intervention as leaving the waste in situ for five days could create a hazard for local residents with seagulls tearing the bags apart. 15 sites were finally selected for the CSI tape intervention as shown in Table 1, with the intervention running for 13 weeks.

Table 1: Sites targeted with the CSI tape intervention

TARGET SREET	WARD	DISPLACEMENT STREETS	TARGET STREET NOTES
Grafton Place	Harbour	Byron Road, Brunswick Road	HMOs/private landlords, transient population. (Alleyways)
Sefton Road	Harbour	Heysham Road, Back Winterdyne Terrace, Bold Street	HMOs/private landlords, transient population + retail outlets (takeaways and convenience stores, cafes). (Alleyways)
Cavendish Road	Harbour	Bold Street	HMOs/private landlords, transient population + retail outlets (takeaways and convenience stores, cafes), recycling bring site. (Alleyways)
Marlborough Road	Harbour	Brunswick Road	HMOs/private landlords, transient population. (Alleyways)
Harrington Road	Harbour	Granville Road	Private landlords, transient population. (Alleyways)
Hampton Road	Harbour	Granville Road	Private landlords, transient population. (Alleyways)
Moss Road	Overton	Roundabout from Moss Road to roundabout to Wickes and back *	Rural – secluded picnic site
Lancaster Road	Overton	Downeyfield	Mix of residential and rural area
Norfolk Street	Skerton East	Owen Road, Pinfold Lane, Kent Street	HMOs/private landlords, transient population. (Alleyways)
Broadway	Skerton East	Main Street, Aldrens Lane	Mostly private/landlord properties with transient population with some retail outlets (chemist, takeaway). (Alleyways)
Gardner Road	Skerton East	Olive Road, Aldrens Lane, Laburnham Road*	HMOs/private landlords, transient population. (Alleyways)
Mainway	Skerton East	Hills Court	Council housing stock in this area. Alleyways off this main road.
Mount Avenue	Skerton East	Hill Road	HMOs/private landlords, transient population
Rylands Road	Skerton West	Morecambe Road, Whiteray Road	Mostly private/landlord properties with transient population. Alleyway
Hammerton Hill Lane	Skerton West	Cirenester Close*, Hammerton Hall Close, Shakespeare Road	Council housing estate where there are numerous issues re waste disposal. Rabbit warren of interlinking alleyways.

\*These streets did not have any data recorded and were omitted from the results.

## 4.2 Social impact stencil intervention

Keep Britain Tidy research into fly-tipping behaviour revealed that people perceive fly-tipping as low-impact. The SIS intervention is designed to highlight the social and financial impacts of fly-tipping through chalk paint stencil messages left behind where fly-tips have been cleared (see figure 5). This was accompanied by communication with local residents about the correct disposal of waste with a posted letter (see section 4.3). Figures 6 and 7 show the SIS intervention in action.

Figure 5: Stencil used in the SIS intervention



Figure 6: LCC Street Cleansing staff delivering the SIS intervention



Figure 7: LCC Street Cleansing staff delivering the SIS intervention



10 sites were selected for the SIS intervention as shown in Table 2, with the intervention running for 13 weeks.

Table 2: Sites targeted with the SIS intervention

TARGET STREET	WARD	DISPLACEMENT STREET	TARGET STREET NOTES
Alexandra Road	Harbour/ Poulton	Cambridge Road, West Street, Parliament Street, Yorkshire Street (W)	HMOs/private landlords, transient population, retail outlets (takeaways and convenience stores). (Alleyways)
Clarendon Road East and West	Harbour	Claremont Road, Regent Road, Claremont Crescent	HMOs/private landlords, transient population, retail outlets (takeaways and convenience stores). (Alleyways)
Albert Road	Harbour	Yorkshire Street, Lancashire Street, Springfield Street	HMOs/private landlords, transient population, retail outlets (takeaways, charity shops and convenience stores). (Alleyways)
Westminster Road	Harbour	Alexandra Road*, Avondale Road	HMOs/private landlords, transient population, retail outlets (takeaways and convenience stores, cafes). (Alleyways)
Euston Grove	Poulton	Euston Road, Billy Hill*	HMOs/private landlords, transient population, retail outlets (takeaways, charity shops and convenience stores). (Alleyways)
Oxford Street	Poulton	Primrose Street, Beecham Street, Townley Street	HMOs/private landlords, transient population. (Alleyways)
Pedder Street	Poulton	Queen Street, Anderton Street*	HMOs/private landlords, transient population, retail outlets (takeaways, charity shops and convenience stores). (Alleyways)
King Street	Poulton	Wellington Terrace*, North Street*, Euston Road	HMOs/private landlords, transient population (Some retail outlets). (Alleyways)
Kensington Road	Poulton	Hanover Street, Westover Street	HMOs/private landlords, transient population. (Alleyways)
Back Lines Street*	Poulton	Lines Street, Claremont Street*, Deansgate	HMOs/private landlords, transient population, retail outlets (takeaways, charity shops and convenience stores). (Alleyways)
Back Queen Street	Poulton	Queen Street, Anderton Street*	Dog-leg alley in between areas – used frequently to fly-tip as it is tucked away. (Alleyways)

\*These street did not have any data recorded and were omitted from the results.

### 4.3 Letter

A letter was distributed to residents in all the target areas at the start of intervention period. LCC produced this letter to reinforce that they are working to eradicate illegally dumped waste and to highlight to residents the correct way to dispose of waste.

Figure 8: LCC letter to residents distributed at the start of the intervention period



## 4.4 Monitoring and evaluation

LCC has an established fly-tipping reporting system in place used by operational staff to record fly-tips when they are cleared; this is done on paper and then later transferred electronically. This system includes recording the location of the fly-tip along with the waste type and size. This monitoring system continued to be used throughout the intervention. A baseline was taken from the already recorded data five weeks prior to the start of the interventions, from 11<sup>th</sup> April to 14<sup>th</sup> May 2022 (baseline period). Both interventions ran for 13 weeks from 16<sup>th</sup> May to 13<sup>th</sup> August 2022 (intervention period). After this time, both interventions ceased. Post intervention data was then taken for a five week period (post intervention period). However, no data was recorded between 15<sup>th</sup> and 19<sup>th</sup> August across all sites, and therefore the five week post intervention period ran from 22<sup>nd</sup> August to 24<sup>th</sup> September 2022.

Following the workshops for operational staff which took place towards the end of the baseline period, operational staff started to record all black bags as fly-tips during the intervention period. This was not consistently recorded prior to the interventions. The lack of comparable baseline data has created a major limitation in the data analysis, because it prevents a comparison of levels of fly-tipping in the intervention period and post intervention period with the baseline. However we are able to evaluate the changes in the level of fly-tipping during the intervention period.

Operational managers oversaw the interventions and carried out walk rounds regularly during the intervention period, supporting the crew and speaking to residents in the target areas.

Target streets were visited on the same day each week and all fly-tips identified were recorded, noting down the location, the waste size and the waste type. For all the target streets in the SIS intervention, the fly-tips were removed when first seen. For all the fly-tips located in the CSI target streets, the fly-tips were recorded but were left in situ for five days after they had been taped and stickered; the crew then revisited after five days to remove the fly-tip but did not record the fly-tip twice to avoid double counting.

Alongside this, displacement streets were monitored as normal and all fly-tips located on displacement streets were recorded and removed with no intervention work. The inclusion of displacement streets in the data allows for consideration of whether or not the interventions drive fly-tipping to nearby locations; if not it can be reasonably concluded that fly-tipping has been prevented.

Control streets were not part of the monitoring framework. Control streets are streets in the ward or wider area where no intervention takes place and are not considered to be displacement streets. Fly-tipping in control streets shows the expected results on the target streets if no intervention had taken place, i.e. it allows wider trends in fly-tipping to be seen. This is also a limitation in the data analysis.

# 5 RESULTS: FLY-TIPPING DATA

## 5.1 CSI tape intervention

Table 3 shows the total number and weekly average of fly-tips recorded across all CSI tape sites broken down by target and displacement streets and by period.

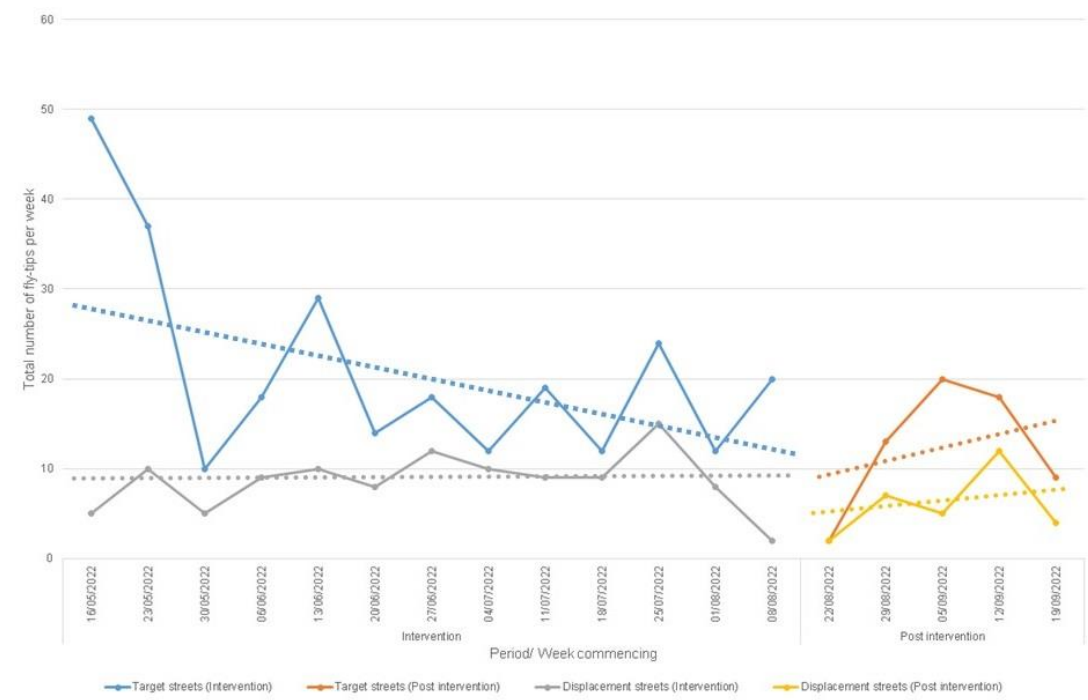
Table 3: Total number and weekly average fly-tips recorded at CSI tape intervention sites

PERIOD	NUMBER OF WEEKS	TARGET STREETS		DISPLACEMENT STREETS	
		NUMBER OF FLY-TIPS IN PERIOD	AVERAGE NUMBER OF FLY-TIPS PER WEEK	NUMBER OF FLY-TIPS IN PERIOD	AVERAGE NUMBER OF FLY-TIPS PER WEEK
Baseline	5	24	4.8	8	1.6
Intervention	13	274	21.1	112	8.6
Post intervention	5	62	12.4	30	6.0
<b>Total</b>		<b>360</b>	<b>15.7</b>	<b>150</b>	<b>6.5</b>

It can be seen that levels of fly-tipping spike in the intervention period. As discussed in section 4.4, the baseline is not reliable as black bags were not consistently recorded as fly-tipping during this period; this was initiated at the start of the intervention period. This makes quantified comparisons of the average number of fly-tips in different periods invalid. As such, we will focus discussion on trends during the intervention and post intervention periods.

Figure 9 shows how the total number of fly-tips per week across all CSI tape sites varied over the course of the intervention and post intervention periods. Trend lines have been added to show whether fly-tipping was generally decreasing or increasing.

Figure 9: Total number of fly-tips per week recorded at CSI tape intervention sites across the intervention and post intervention periods



As seen above, the total number of fly-tips per week in target streets decreased from a high of 49 at the start of the intervention period to 20 by the end of the 13 week intervention – although this is not the lowest level of fly-tipping seen, which was 10 in week 3. A clear trend of decreasing numbers of fly-tips is evident.

The trend line for the total number of fly-tips per week in displacement streets stays relatively consistent across the intervention period. This suggests that the CSI tape intervention did not drive fly-tipping to nearby locations, and that therefore fly-tipping was prevented.

During the post intervention period, the total number of fly-tips per week in target streets and displacement streets increases as shown by the trend lines (although this is caveated by limitation of a small number of data points). However, the number of fly-tips per week for target streets is far lower than the peak number of fly-tips at the start of the intervention period.

## 5.2 Social impact stencil intervention

Table 4 shows the total number and weekly average of fly-tips recorded across all SIS sites broken down by target and displacement streets and by period.

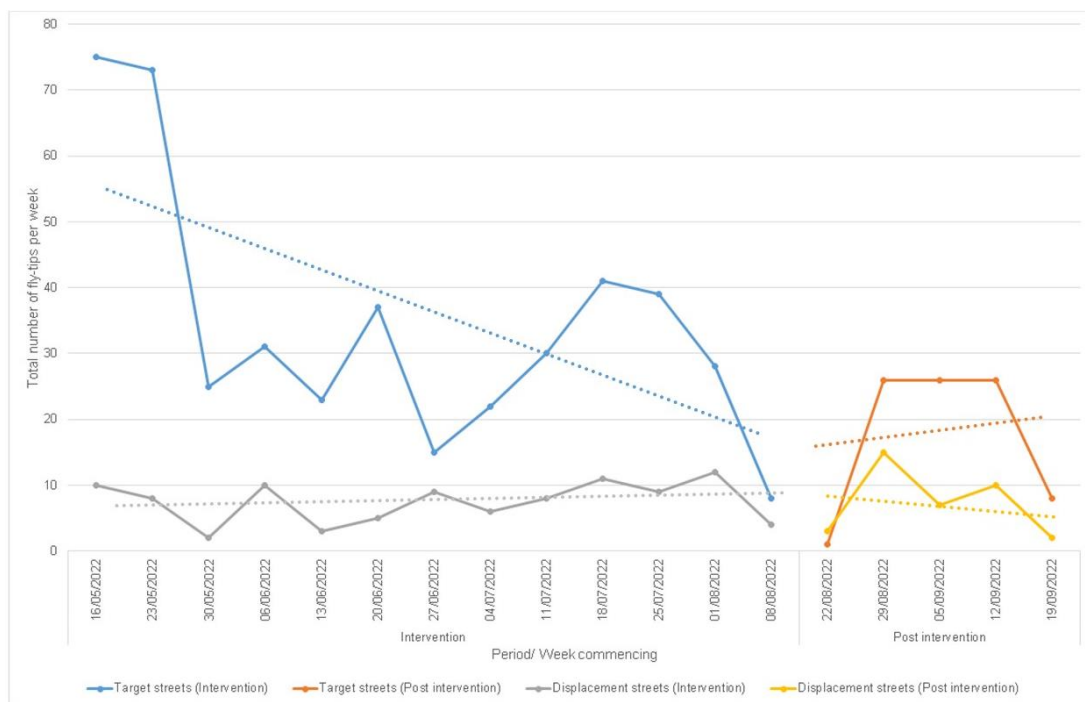
Table 4: Total number and weekly average fly-tips recorded at SIS intervention sites

PERIOD	NUMBER OF WEEKS	TARGET STREETS		DISPLACEMENT STREETS	
		NUMBER OF FLY-TIPS IN PERIOD	AVERAGE NUMBER OF FLY-TIPS PER WEEK	NUMBER OF FLY-TIPS IN PERIOD	AVERAGE NUMBER OF FLY-TIPS PER WEEK
Baseline	5	10	2.0	11	2.2
Intervention	13	447	34.4	97	7.5
Post intervention	5	87	17.4	37	7.4
<b>Total</b>		<b>544</b>	<b>23.7</b>	<b>145</b>	<b>6.3</b>

Again, for reasons discussed in section 5.1, we will focus discussion on trends during the intervention and post intervention periods.

Figure 10 shows how the total number of fly-tips per week across all SIS sites varied over the course of the intervention and post intervention periods. Trend lines have been added to show whether fly-tipping was generally decreasing or increasing.

Figure 10: Total number of fly-tips per week recorded at SIS intervention sites across the intervention and post intervention periods



As seen above, the total number of fly-tips per week in target streets decreased from a high of 75 at the start of the intervention period to a low of eight by the end of the 13 week intervention. A clear trend of decreasing numbers of fly-tips is evident.

The trend line for the total number of fly-tips per week in displacement streets increases slightly across the intervention period. This suggests that the SIS intervention may have resulted in some displacement of fly-tips.

During the post intervention period, the total number of fly-tips per week in target streets increases as shown by the trend line. However, the number of fly-tips per week for target streets is far lower than the peak number of fly-tips at the start of the intervention period. The total number of fly-tips per week in displacement streets decreases, although both trend lines are again caveated by limitation of a small number of data points.

## 6 RESULTS: SURVEYS

### 6.1 CSI tape intervention

A total of 150 resident perception surveys were collected for the CSI tape intervention through a door-to-door survey across three areas – between Broadway and Gardner Road, between Broadway and Norfolk Street, and off Alexander Road and Olive Road. These sites were perceived to have a mixed level of success during the intervention period.

When asked if the residents considered dumped waste a problem in their area, 65% of respondents thought dumped waste was a major problem. When asked whether they think there has been more/less/about the same number of waste dumped on the street in the last three weeks (of the intervention period), the majority of respondents (59%) considered it to be the same, while 19% considered it to be slightly and a lot less.

To better understand what residents consider as fly-tipping, they were given a list of illegal activities to identify as seen in Table 5. Leaving donations outside charity shops and next to charity bins showed the lowest perception of illegal activity.

Table 5: Perceptions of illegal activities

ILLEGAL ACTIVITIES	PERCENTAGE OF PEOPLE ABLE TO IDENTIFY THE ILLEGAL ACTIVITY
Leaving an item from your household that you no longer need outside on the street	93%
Leaving garden waste outside on public land (e.g. in a park or on a roadside) (grass clippings, hedge clippings, leaves or branches)	73%
Leaving a bag of rubbish next to a public bin	67%
Leaving an item from your household outside on the street or in a public space for a scrap dealer	61%
Leaving recyclables next to a public recycling bin (e.g. cardboard packaging)	43%
Leaving donations outside a charity shop (e.g. clothing, books or furniture,)	26%
Leaving donations next to a charity donations container/bin (e.g. clothing, books or children's toys)	24%

When asked 'Over the past 12 months which of the following services have you used to get rid of items from your household that you couldn't put into your regular waste and recycling collection bins?', 69% of respondents said they took it to the local tip/HWRC; only 8% said they used LCC's bulk waste collection and 3% said they used LCC's garden waste collection service. Interestingly, 68% of those who visited the HWRC also own or have regular access to a car.

39% of respondents said they saw the CSI tape intervention and in Table 6, we can see what respondents considered the purpose of the intervention to be. To stop people from leaving waste items on the street / reduce illegally dumped rubbish / waste / fly-tipping was most commonly recorded at 47% of responses. The 'Other' responses included 'Hazardous waste' and 'Awareness'.

Table 6: Perceptions of the purpose of the CSI tape intervention

PURPOSE OF THE CSI TAPE INTERVENTION	PERCENTAGE OF RESPONSES
To stop people from leaving waste items on the street / reduce illegally dumped rubbish / waste / fly-tipping	47%
To investigate the offence / trace the person(s) responsible	39%
To show that dumping rubbish / waste / fly-tipping is a crime	38%
To send a message to people that dumping waste / fly-tipping won't be tolerated	35%
To show that the council is doing something to tackle dumped rubbish / waste / fly-tipping	20%
To show that the council will not simply just collect illegally dumped rubbish / waste / fly-tipping	8%
Don't know	7%
Other	5%

Respondents were asked to what extent they agree or disagree to a series of statements about the CSI tape intervention. The following percentage of respondents slightly and strongly agree to the statement:

- A total of 75% agree that the intervention shows that LCC is working to tackle waste dumped on the streets
- 33% agree that the intervention will result in less items of waste being dumped
- 23% agree that the intervention has already resulted in less items of waste being dumped in the area
- 29% agree that the intervention will make them think twice about what to do with unwanted items in the future
- 55% agree that the intervention has made them realise that it is the council who often take away unwanted items
- 65% agree that the intervention made them realise that resident leaving unwanted items in public places can have a lasting effect on the local community.

Respondents were asked about their thought on the CSI tape intervention. Some were sceptical about the intervention and were not sure if it would make a difference in their community. Comments include:

*“Don't think it will make a difference to people who dump rubbish.”*  
*“No one will take any notice, I've seen kids tear it [the tape] off and drape it on gates.”*  
*“Anything is worth a try but to be honest the people who are dumping won't take any notice.”*

There were a lot of positive comments happy to see LCC doing something to tackle waste. Comments include:

*“Good idea, since they have done it, here has been less fly-tipping in the alley.”*  
*“It does make a lot of difference.”*  
*“It's been a big improvement.”*

Table 7 below shows the answers to “What, if anything, do you think could happen to the people responsible if they were caught leaving unwanted items or dumping waste?”. The biggest perceived threat was receiving a fine with 80% of responses. The ‘other’ responses included ‘community service’ and ‘prison sentence’.

Table 7: Perceptions of the consequences of fly-tipping

CONSEQUENCE OF FLY-TIPPING	PERCENTAGE OF RESPONSES
They could receive a fine	80%
They could go to court	27%
They could receive a warning letter	14%
They could get a criminal record	11%
Other	10%
Nothing	5%
Don't know	5%

When asked about the how likely they believe someone leaving unwanted items/dumping waste will get caught, a total of 74% of respondents believed it was somewhat and very unlikely.

## 6.2 Social impact stencil intervention

A total of 150 resident perception surveys were collected for the SIS intervention through a door-to-door survey across three areas – Harrington Road and Hampton Road, Clarendon Road, and Alexandra Road/Milano's premises. These sites were perceived to have a mixed level of success during the intervention period.

When asked if the resident considered dumped waste a problem in their area, 79% of respondents thought dumped waste was a major problem. When asked whether they think there has been more/less/about the same number of waste dumped on the street in the last three weeks (of the intervention period), the majority of respondents (69%) considered it to be the same, while 10% considered it to be slightly and a lot less.

To better understand what residents consider as fly-tipping, they were give a list of illegal activities to identify as seen in Table 8. Leaving donations outside charity shops and next to charity bins showed the lowest perception of illegal activity, similar to perceptions at the CSI tape intervention sites.

Table 8: Perceptions of illegal activities

ILLEGAL ACTIVITIES	PERCENTAGE OF PEOPLE ABLE TO IDENTIFY THE ILLEGAL ACTIVITY
Leaving an item from your household that you no longer need outside on the street	95%
Leaving an item from your household outside on the street or in a public space for a scrap dealer	75%
Leaving garden waste outside on public land (e.g. in a park or on a roadside) (grass clippings, hedge clippings, leaves or branches)	71%
Leaving a bag of rubbish next to a public bin	68%
Leaving recyclables next to a public recycling bin (e.g. cardboard packaging)	55%
Leaving donations next to a charity donations container/bin (e.g. clothing, books or children's toys)	33%
Leaving donations outside a charity shop (e.g. clothing, books or furniture)	29%

When asked ‘Over the past 12 months which of the following services have you used to get rid of items from your household that you couldn’t put into your regular waste and recycling collection bins?’, 77% of respondents said they took the waste to the local tip/HWRC. Only 9% said they used LCC’s bulky waste collection and 3% said they used LCC’s garden waste collection service. The remaining 25% of respondents said they have use none of the above or have used a ‘scrap dealer’.

Over half the respondents, 57% said they saw the SIS intervention and in Table 9, we can see what all the respondents considered the purpose of the intervention to be. To stop people from leaving waste items on the street / reduce illegally dumped rubbish / waste / fly-tipping was most commonly recorded at 54% of responses. The ‘other’ responses included ‘to keep communities clean’ and ‘that is costs the council to clear the rubbish’.

Table 9: Perceptions of the purpose of the SIS intervention

PURPOSE OF THE SIS INTERVENTION	PERCENTAGE OF RESPONSES
To stop people from leaving waste items on the street / reduce illegally dumped rubbish / waste / fly-tipping	54%
To show that the council is doing something to tackle dumped waste / fly-tipping	47%
Other	11%
To show that it costs the council a lot of money to clear up	10%
To send a message to people that dumping waste / fly-tipping won't be tolerated	7%
Don't know	5%
To show that if people didn't dump waste on the street, there would be more money for other things that would benefit the community	4%
To show that if the council has to keep cleaning it up, they will have less money to spend on other things in our neighbourhood	3%
To show that the council has a limited budget	2%

The respondents were asked to what extent they agree or disagree to a series of statements about the SIS intervention. The following percentage of respondents slightly and strongly agree to the statement:

- A total of 68% agree that the intervention shows that LCC is working to tackle waste dumped on the streets
- 18% agree that the intervention will result in less items of waste being dumped
- 11% agree that the intervention has already resulted in less items of waste being dumped in the area
- 14% agree that the intervention will make them think twice about what to do with unwanted items in the future
- 35% agree that the intervention has made them realise that it is the council who often take away unwanted items
- 70% agree that the intervention made them realise that resident leaving unwanted items in public places can have a lasting effect on the local community.

Overall the percentages of agreement to the statement were lower than the CSI tape intervention. Residents were asked about their thought on the SIS intervention. Most were unsure if the intervention would work in their community and did not see the intervention at all. Comments include:

*“Not sure I've seen it but I've seen piles of rubbish with yellow tape saying it's under investigation”*

*“Well if it stops all the waste being dumped that’s good but I honestly think it won’t make any difference at all”.*

A few people were hopeful that the intervention would work. Comments include:

*“It will I think have an effect in the long term, think it is great that people can see that the council are trying to do something about it.”*

*“It is a fantastic start but not worked yet.”*

The below table shows the answers to “What, if anything, do you think could happen to the people responsible if they were caught leaving unwanted items or dumping waste?”. The biggest perceived threat was receiving a fine with 73% of responses. The ‘other’ responses included ‘community service’ and ‘prison sentence’ similar to the CSI intervention perception.

Table 10: Perceptions of the consequences of fly-tipping

CONSEQUENCE OF FLY-TIPPING	PERCENTAGE OF RESPONSES
They could receive a fine	73%
They could go to court	31%
They could get a criminal record	19%
Other	13%
Nothing	7%
Don't know	7%
They could receive a warning letter	6%

When asked for comments on the interventions, a few residents complained about the graffiti aspect of the intervention. For example:

*“If we did graffiti we would be fined, why should the council be allowed to do it?”*

A lot of comments were residents complaining about the level of fly-tipping:

*“It’s really bad sometimes it has brought rats and when they leave black bags the seagulls come and rip them apart.”*

*“It would be nice to see a clean street, people want to live in a nice area.”*

# 7 LANCASTER CITY COUNCIL FEEDBACK

## 7.1 Operational staff feedback

The Street Cleansing team felt the CSI tape intervention worked very well. They felt the bright yellow and black colours on the tape and stickers grabbed everyone's attention and was highly visible. The crew really liked the reference line on the stickers and they used this line to write in a case number to keep track of the fly-tips. The team also felt leaving the fly-tips for five days was a good length of time for people to see the intervention. They also witnessed several people removing their fly-tips after taping with CSI tape and stickers. However, sometimes they did come back to find fly-tips with the tape and sticker taken off, particularly the stickers, which contained the reference number they had written on. The crews also felt the £400 fine reference on the stickers worked really well to increase the perceived threat of being caught fly-tipping. One of the crew members said:

*"The areas we work on are some of the worst, I did not think it [CSI tape intervention] was going to work, but I was surprised it did! The result we got was good for the CSI. People were removing the fly-tips themselves."*

The team did not feel the SIS intervention worked as well. They felt that people used the stencil as a collection point. They also felt that the messaging on the stencil did not work for the areas they were stencilling and that it needed to be harder hitting, as they felt the residents did not care much for their community. However, throughout the intervention residents questioned the crews as to what they were doing. This allowed them to engage in conversations about what they were trying to achieve and was mainly reciprocated with appreciation from residents. One of the crew members said:

*"Once we were a more visual presence and had the time to interact and really get to know the residents it was obvious that they do care about their area being tidy, and in the whole I would say that 90% of the people reaction to what we're trying to achieve was positive."*

Practically the Street Cleansing team found both intervention materials easy to use. They did note however that on windy days and back alleys, the spray paint was difficult to apply. Also on CSI tape streets, they sometimes needed more than 3m of tape per fly-tip due to the size of fly-tips they were reporting and the fear of it scattering on the street.

They felt the locations for the SIS intervention were not visible enough and majority of the streets were cobbled, so the team had to stencil the walls. This made the spray very stubborn and difficult to remove. In contrast, when the stencil was placed on the pavement it washed away with the rain. The team liked to use lots of different spray paint colours in one area to increase visibility and would recommend others do so too.

The Street Cleansing team felt supported and motivated throughout the 13 week intervention as two managers regularly monitored their streets, talking to residents about the work they were doing and they themselves saw a visible decrease in the number of fly-tips.

When asked if the face-to-face sessions prepared them for the interventions, they fed back that the workshop covered everything they needed to know and motivated them to try out the interventions.

## 7.2 Key managerial feedback

The Head of Services fed back that he was satisfied with the interventions, and has heard from his team that the CSI tape sites were experiencing a decrease in the level of fly-tipping. They all felt the CSI intervention had met its objective to reduce fly-tipping, increased the perceived threat of getting caught fly-tipping and increased the perception that the council is working to address fly-tipping. They also felt the SIS intervention had met its objective of highlighting to residents that fly-tipped waste does not simply disappear but has a lasting effect on the community and to raise awareness that the local council is collecting the fly-tips.

Visibility of the interventions was very important; in locations where both interventions were more visible they felt they performed better. Comments include:

*“The massive one [fly-tip] cleared up in Morecambe, literally looked like it was a setup of a living room and then two days later it was all gone... People did remove them, people you could see were worried about the repercussion of this, the fact that people were walking around, tape was going on, that visibility, it was all about visibility.”*

*“You’ve really hit the objectives, it was visible, it did what it said on the tin and it really made people think about their action and what they have to do next.”*

Managers had received complaints from residents regarding stencilling on their walls, which was removed by the graffiti team. However, spraying on the ground washed off easily.

They felt the stencil messaging could possibly work better in other areas; however, if they were to scale this intervention in Lancaster they would like to tailor the messaging to something tangible for each neighbourhood.

They felt the two managers going out regularly helped to maintain morale within the crews, especially with a 13 week intervention period. The crews and the managers were stopped regularly by residents and they felt residents wanted to feel pride over their community but it was ruined by a small group of people.

When asked about the workshop sessions, they said:

*“From my perspective it did everything we expecting it to, clear and well delivered and you were able to answer any questions or any concerns... helped buy everyone in [to the interventions].”*

They felt after the workshop, there was some miscommunication with the communications team in creating the leaflets for residents and businesses, which delayed leaflet production.

## 8 DISCUSSION AND CONCLUSIONS

Assessing the outcomes of the CSI tape and SIS interventions is usually established by comparing the average number of fly-tips per week in the baseline period against the intervention period (to see how behaviour changes during the intervention period) and post intervention period (to see how behaviour changes after the intervention). The change in how fly-tipping was recorded by crews during the intervention period, to consistently include black bags as fly-tips (which wasn't happening previously), means that there is no comparable baseline data by which to establish the outcomes of the interventions in Lancaster. Nonetheless, looking at how the total number of fly-tips per week across all intervention sites varied over the course of the intervention and post intervention periods demonstrates positive trends:

22. There is a clear trend of decreasing numbers of fly-tips in target streets as the intervention period progresses for both interventions:
  - a. With respect to the CSI tape intervention, the total number of fly-tips per week in target streets decreased from a high of 49 at the start of the intervention period to 20 by the end of the 13 week intervention. This is a 59% reduction in the number of fly-tips seen in the first week of the intervention.
  - b. With respect to the SIS intervention, the total number of fly-tips per week in target streets decreased from a high of 75 at the start of the intervention period to a low of eight by the end of the 13 week intervention. This is an 89% reduction in the number of fly-tips seen in the first week of the intervention.
  - c. Given the absence of control streets, we do not know the trends in fly-tipping behaviour elsewhere. For example, fly-tipping could have been dropping throughout Lancaster at this time. However, this is unlikely, and therefore we can conclude with relative confidence that the interventions were driving the decrease in fly-tips.
  - d. Please note that the percentage reductions in the number of fly-tips represent reductions in fly-tipping during the intervention period not an overall reduction. Overall reductions have to be based on a comparison of the average number of fly-tips per week in the baseline and intervention periods, which is not possible here.
23. There is a trend of a relatively consistent number of fly-tips in displacement streets as the CSI tape intervention progresses. This suggests that the CSI tape intervention did not drive fly-tipping to nearby locations, and that therefore fly-tipping was prevented. Conversely, there is a trend of the total number of fly-tips per week in displacement streets increasing slightly as the SIS intervention progressed. This suggests that the SIS intervention may have resulted in some displacement of fly-tips.
24. In the post intervention period for both interventions, there is a trend of increasing numbers of fly-tips in target streets. However, the number of fly-tips per week for target streets is far lower than the peak number of fly-tips at the start of the intervention period for both interventions. This suggests that the interventions do have some lasting impact, but that this is time-limited.

In terms of residents' views, 65% of respondents in CSI tape areas thought dumped waste was a major problem compared to 79% in SIS areas. In both areas, the majority of respondents thought that there had been the same numbers of fly-tips on the street in the last three weeks (59% and 69% for CSI and SIS respectively; only 19% and 10% thought it was less respectively).

39% of respondents said they saw the CSI tape intervention, while over half the respondents (57%) said they saw the SIS intervention, suggesting that visibility of the latter intervention was higher. Just under half of respondents (47%) thought that the purpose of the CSI tape intervention was to stop people from fly-tipping, while just over half of respondents (54%) thought the same for the SIS intervention.

The majority of respondents agreed that the intervention shows the LCC is working to tackle fly-tipping – 75% in CSI tape areas and 68% in SIS areas – demonstrating the value of these interventions to LCC not only in reducing fly-tipping but in being seen to take action. Confidence in the effectiveness of the interventions was lower for SIS compared to CSI tape, both in terms of wider and personal behaviour. For example, 18% thought that the SIS intervention will result in less items of waste being dumped compared

to 33% for the CSI intervention, while 14% thought that the SIS intervention will make them think twice about what to do with unwanted items in the future compared to 29% for the CSI tape intervention. The CSI tape also fared better at making residents realise it is the council who often removes unwanted items – 55% of residents agreed with this statement, compared to 35% for SIS. The SIS intervention did appear to have more of an impact in making resident realise that leaving unwanted items in public places can have a lasting effect on the local community – 70% of resident agreed with this statement compared to 65% for CIS tape.

Feedback from operational and managerial staff about the support package surrounding the interventions was positive. Operational staff were also very positive about the difference that the CSI tape intervention had made. They voiced that they felt the CSI intervention had worked in some of the most tough and heavily fly-tipped areas, and that they had seen people remove their fly-tipped waste after it had been cordoned off and stickered. The SIS intervention was less well received by operational staff. They were sceptical that the intervention had worked and believed people were using the stencils left behind as a collection point for fly-tipping. The perceptions survey also indicate that the SIS intervention was less well received by residents, particularly around perceived effectiveness in changing behaviour. However, the views of operational staff and residents are not borne out in the fly-tipping data which suggests greater effectiveness of the SIS intervention compared to the CSI tape intervention.

## 9 RECOMMENDATIONS

Keep Britain Tidy's recommendations for scaling the CSI tape and SIS interventions across Lancaster are as follows:

- Moving forward a consistent method of recording fly-tips (including black bags) should be recognised by all operational teams to allow a comparable baseline to be established. This is crucial in order to robustly establish the effectiveness of the interventions, and identify hotspots to be targeted by the interventions. Managerial feedback sessions also suggested that crew members move away from reporting on physical sheets and start to use electronic tablets to better record fly-tips, which we strongly support.
- Further to this, a review of the side waste policy is recommended when considering scaling these interventions, as there needs to be clear definitions of which black bags left out are to be collected as part of domestic waste collections and which are considered to be fly-tips. This will support consistent recording of fly-tips.
- The areas that were targeted with the interventions were of high deprivation and many were dominated by houses in multiple occupation (HMO) and private landlord properties. Both interventions could be trialled in less deprived areas to get a wider understanding of the different waste behaviours of residents. This can also showcase an accurate level of fly-tipping in these areas and highlight if a review of waste facilities in HMOs is needed to check if tenants have the correct provisions to deal with their waste and if landlords need to be held accountable to their duty of care. We suggest this picture is overlaid with data about use of the bulky waste service in these respective areas.
- The majority of fly-tips identified were household waste, which is a reflection of the fly-tip waste types across England's local authorities (65%) as presented in the 'Fly-tipping statistics for England, 2020 to 2021'. We would strongly recommend a leaflet for residents is distributed before scaling interventions, educating residents on the correct and alternative waste disposal methods, and what is illegal dumping. A final resident leaflet and business leaflet with 'Produced in partnership with Keep Britain Tidy' logo will be shared with LCC to use when scaling these interventions. Any changes to these leaflets will need to be approved by Keep Britain Tidy.
- All members of operational staff who are involved in clearing fly-tips should be fully trained to carry out the intervention – this includes understanding how the interventions work, and how to deliver them. We also recommend keeping enforcement, communications and other stakeholders informed of the interventions throughout the process.
- The support managers showed to operational staff helped to keep the crews motivated throughout the 13 week intervention period. During the feedback session LCC staff reiterated that supporting the crews, being visible for the team and giving it 100% helped to make the interventions successful. The additional walk rounds by managers in the target areas may also have helped reduce fly-tipping as residents saw an additional LCC presence during the interventions. However, it is recognised that this element was quite time consuming and may not always being achievable going forward. If not, then extra care should be taken to ensure operational staff feel supported and motivated. If there are concerns about the enthusiasm of the operational staff in future, LCC could consider running the intervention for shorter period time, such as six weeks.
- We anticipate that LCC may make changes to the interventions in future. These may include distributing the leaflets for residents and businesses highlighting correct disposal methods at the start of the intervention rather than the letter, making changes to the involvement of managers on the ground, and changing the duration of the intervention. If multiple changes are made at once, then LCC will not be able to identify which change had the biggest impact on effectiveness. Therefore, any changes should initially be made in isolation and within a consistent method of monitoring fly-tips.
- The use of the SIS intervention in alleyways raised issues around stencilling on walls, because the stencil was not readable on cobbled pavements. The suitability of surfaces should be a consideration in the selection of sites for the SIS intervention.

- As recommended in the managerial feedback session, the stencil message could be tailored to the area the SIS intervention takes place in, to allow the messaging to hit home with the local residents. Stencil messaging should be carefully selected.
- While both interventions reduce the numbers of fly-tips during the intervention period, this behaviour change is not permanent. However, there is risk that by continuing to run the interventions in the same areas continuously that residents may start to ignore the messages, and operational staff become weary. The London Borough of Newham has had success with a programme of targeting fly-tipping hotspots for six weeks with either the CSI or SIS intervention before moving on and returning periodically. We suggest that LCC consider a similar model.



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