

Case Study: We're Watching You – Beaconsfield Motorway Service Area

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Introduction

This was a poster intervention trial aimed at reducing littering at Beaconsfield Motorway Service Area (MSA). The trial was carried out in partnership with Extra Motorway Services to change the behaviour of litterers at this MSA. Keep Britain Tidy's previous research¹ has suggested that vehicle littering is more likely to occur when people are alone or out of sight from others. This trial therefore aimed to test the 'watching eyes' approach that has been successful in encouraging other socially desirable behaviour².

Methodology

The chosen target site, located on the M40 motorway, has over 600 parking spaces and houses over 15 restaurants and shops.

The posters were designed to specifically target drivers and vehicle litterers. They were produced in a reflective material, allowing them to be visible under car headlights and other lighting. Forty posters were fixed to lampposts across the car park, including at the entrance and exit. These were supported by a number of smaller, non-reflective versions placed inside the services building.

The impact of the posters was measured using two 28 day monitoring phases; one prior to the installation of the posters, and one while the posters were in situ.

During both monitoring periods, the following data collection took place:

Litter monitoring was conducted by the MSA cleansing staff on a daily basis. Full bags of litter (from both the ground and the 32 car park waste bins) were collected and counted.

Waste composition analysis provided a snapshot of the types of waste disposed of, correctly and incorrectly, at the site. This was conducted by weighing, counting, and categorising the contents of a sample bags collected at the site.

Behavioural observations enabled disposal behaviour and demographics of site visitors to be measured, as well as any relevant contextual information (e.g. group size).

Intercept interviews with site visitors provided insight into their attitudes and awareness around littering in MSAs and from vehicles. These were short and semi-structured.

Figure 1: Poster intervention design



¹ Vehicle Littering Report, Keep Britain Tidy, 2009

² Keeping an eye on it: A social experiment to combat dog fouling, Keep Britain Tidy, 2014

Results

Litter monitoring by cleansing staff found no difference in the amount of litter found at the site across the two monitoring periods. Both prior to and during the intervention, 11% of all bags of waste collected at the site was litter, disposed of incorrectly on the ground.

Table 1: Observed disposal behaviours

	Binned	Littered
Before intervention	30%	70%
During intervention	46%	54%

Base: Before = 84, During = 91

Behavioural observations found a 16% improvement in the number of people who binned litter during the intervention compared with before the intervention. Overall this constituted a 23%³ reduction in littering against the baseline.

In total, a slightly higher proportion of males were observed littering (63%) than females (59%), and a reduction in littering was observed across all ages. Littering rates increased with group size, meaning the larger the group, the less effective the posters were. Overall, littering was observed most frequently in vehicle passengers, but the posters had a greater impact on the littering behaviour of drivers (a reduction of 25%).

Largely, littering occurred once visitors had exited the services building (79%) and the greatest proportion of litterers (48%) were sat in a car rather than sat at tables or walking.

Waste composition analysis found the most frequently littered items were food packaging and utensils such as plastic forks (27%), followed by paper (17%) and tissues (15%). Almost half (49%) of the litter from this sample was from the two fast food restaurants at the site.

Intercept interviews found that 86% of respondents claimed to always dispose of their waste items in a bin; a small number felt it to be the responsibility of MSA staff to clear waste items from outdoor seating areas. Littering was perceived to be a problem in the area, with 84% of respondents reporting having observed littering in the MSA car park.

When asked to comment on why others litter at this site, 41% felt this was due to people feeling anonymous, and 38% felt this was due to laziness. All MSA visitors interviewed during the intervention had noticed the posters and were very positive about their impact, message and design.

Partner interviews were conducted on completion of the trial to identify potential areas for improvement. Partners felt the posters were highly visible and were effective in reducing the amount of litter at the site, ultimately allowing staff to spend more time on other tasks. Staff at the MSA planned to continue to use the posters at the site.

Conclusion

Overall, the 'We're Watching You' poster intervention was successful in reducing observed littering behaviour by 23%. Future research should involve testing a larger scale roll-out of this poster intervention, and include in-depth analysis of vehicle littering behaviour.

³ Difference between 'littered before intervention' and 'littered during intervention' divided by 'littered before intervention'.