Services, Climate and Communities Scrutiny Committee Update

2nd December 2025

Litter Strategy – Task and Finish Work on Bin Fill Levels and Scheduling

Purpose - Recommendation to Members

Members are asked to:

1. **Note** the outcomes of the bin sensor and digital monitoring trial as an agreed *task and finish* work under the Litter Strategy Action Plan.

2. **Endorse** the principle of using sensor data and digital tools to guide bin placement, type, and collection schedules in line with the “Right Bin, Right Location, Right Reason” policy.

3. **Support** the immediate use of evidence from the trial to:

    - Rationalise duplicated usage or underused bins (general, recycling, and dog waste) utilising the digital data technology.

    - Adjust routing to maintain the reduction from six to five collection rounds, with further efficiencies explored as data builds.

    - Remove low-capacity dog bins that are underused or with nearby alternatives as appropriate, accompanied by clear signage that dog waste can be placed in general bins.

4. **Agree** that requests for new bins should be supported **only** where sensor data and usage evidence demonstrate genuine need, and proposals align with Litter Strategy principles.

5. **Request officers** to report back in **Spring 2026** with:

    - A summary of the next phase of bin rationalisation.

    - An update on cost savings, carbon reduction, and operational benefits delivered.

    - Proposals for extending the approach to the city centre and other high-footfall areas.

This update is provided to members of the Informal Scrutiny Committee as part of an agreed *task and finish* activity under the **Litter Strategy for Cambridge (2023–2030)**. The focus of this work was to trial **bin fill-level sensors** and **digital scheduling tools** to assess whether technology can improve efficiency, reduce costs, and support cleaner public spaces.

Background

This update is provided to members of the Scrutiny Committee as part of an agreed *task and finish* activity under the **Litter Strategy for Cambridge (2023–2030)**. The focus of this work was to trial **bin fill-level sensors** and **digital scheduling tools** to assess whether technology can improve efficiency, reduce costs, and support cleaner public spaces.

As part of the Litter Strategy, the Council committed to reviewing the type, number, location, and collection schedules for litter and dog waste bins (Action 10 and related actions). Members agreed that a trial of smart bin sensors should form part of this programme, to provide evidence for future decisions.

From 28 November 2024, sensors and digital scheduling technology were installed and trialled across Trumpington, Cherry Hinton and Queen Ediths, this was extended from the 28 July 2025 to focus on all suburban wards and arterial routes (note this does not include the city centre).

What Was Done

- 267 sensors installed in litter and recycling bins.
- 928 additional bins mapped into the digital system (without sensors).
- Sensor and digital data used to identify underused bins (12 recycling, 2 general waste and 14 dog waste) for rationalisation.
- Collection routes optimised – reducing six daily rounds to five.
- Real-time monitoring introduced, using REEN digital technology, to guide daily operations.

Lessons from the Trial Period Analysis (January 2026 until end of April 2026)

- Many **paired bins (recycling/general waste)** are underused – data shows some take over 100 days to fill this has informed the rationalisation of bins.

- **Recycling bins** in public places are often contaminated, limiting actual recycling gains.

- **Dog waste bins** are small, labour-intensive, and use type is often duplicated by nearby general waste bins.

Key Outcomes

- **Operational efficiency:** fewer collection rounds, reduced fuel use, and staff time released for cleansing and grounds maintenance.

- **Environmental benefits:** fewer vehicle trips, reduced carbon impact.

- **Financial benefits:** early evidence of cost savings through more efficient routing.

- **Public realm quality:** fewer overflowing bins, improved monitoring of bin usage.

- **Behavioural change:** ongoing need to reinforce messaging: ***'dog waste can be disposed of in general bins.'***

Next Steps

- Continue monitoring and analyse data to inform further rationalisation, from all data. The latest data analysis from the Trail area Jan 2025 to 24 Sept 2025 and the wider extended areas data from 1 August 2025 to 24 Sept 2025, shows an expected further ~35 additional predominantly recycling waste and ~40 dog bin containers across the city.

- Maintain regular member updates as part of the Litter Strategy action plan.

Strategic Fit

This work delivers directly against the Litter Strategy, especially:

- **Action 10 & 10a**: review bin types, locations, and recycling arrangements.

- **Action 12a & 14–15**: use data to adapt schedules and ensure:

"Right Bin, Right Location, Right Reason."