

# Oxford's Improvement Journey in Waste & Recycling

**Stuart Pohler, Recycling & Waste Operations Manager** 



#### **Oxford**

- 160,000 residents (33,000 students)
- 40,000 houses, 20,000 flats
- 25% annual population turn over
- Old narrow streets
- Higher than average traffic movement









# **Current Performance (provisional)**



• NI 192 up ✓

• NI191 down ✓



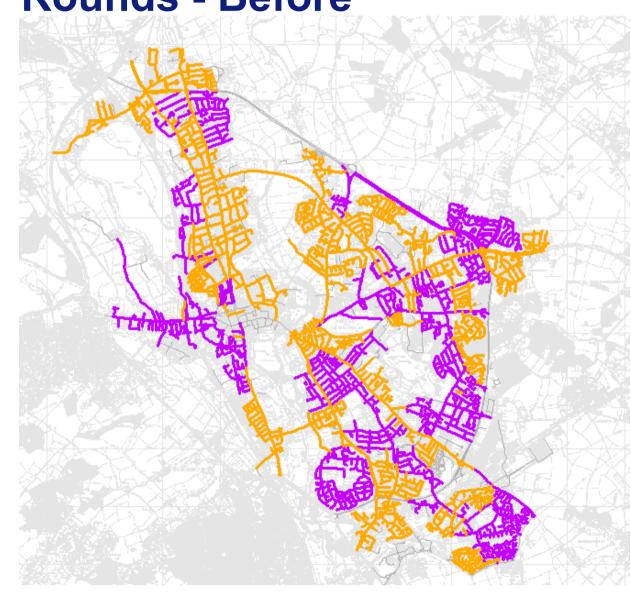
## Start of Our Journey (2009)

- Lack of local recycling facilities;
- Weak data management;
- Lack of effective side waste policy;
- Staff unaware of KPIs underpinning their business activity;
- Operationally inefficient...





# Start of Our Journey .... Rounds - Before





#### **Disadvantages**

- •Unbalanced & fragmented weekdays
- •Unbalanced and fragmented rounds
- •Inefficient use of vehicles and crew
- •Higher risk of crews missing households
- 'Buddy System' cannot operate effectively
- Confusing for residents
- Difficult to manage
- Difficult to communicate



- Reducing the cost of the Recycling and Waste service and to compare with the best that the private sector has to offer with a budget reduction target of £300k pa from 2010/11
- Reducing the carbon impact of the service
- Increasing recycling performance to meet the Councils and the Oxfordshire Waste Partnership recycling targets
- To simplify the service offer to residents
- To provide a service with the aim of improving customer satisfaction
- To procure more local sorting and processing capability to enable a wider range of recyclables to be collected and pushed into the recyclables market





### **Four Day Working**

- Previous service spread over a 5 day period (Mon - Fri), with the collection team working a 37.5 hour week (06.45 -14.45), with a 30 minute lunch break;
- New arrangement: Continue work a 37 hour week but over 4 days (Tue - Fri), starting at 06.30 hrs and finishing 16.15 hrs.





### **Benefits of Four Day Working:**

- Cover breakdowns and other delays / crew flexibility;
- Bank Holidays;
- Maintenance & Training;
- Improved productivity;
- H&S





### **Productivity**

- Assessed across collection services (x12);
- Property numbers were increased to reflect the longer working day;
- Benchmarked using Webaspx route optimisation technology;
- Average collected properties at upper end of industry range that private sector and other cost-effective in-house providers achieve in urban environments;





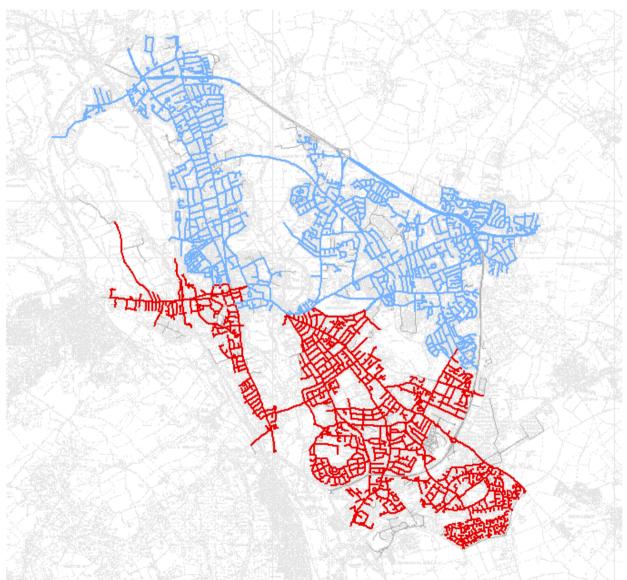
AWC Co- mingled recycling	Dvrs	Ldrs	Vehs	Props/day average	Props/week average	Weights/day (tonnes)	Weights/week (tonnes)
Round 1	1	2	1	1450	5801	10.22	40.88
Round 2	1	2	1	1369	5477	9.65	38.6
Round 3	1	2	1	1470	5882	10.36	41.46
Round 4	1	2	1	1455	5822	10.26	41.03
Round 5	1	2	1	1418	5672	9.99	39.98
Totals	5	10	5	7159	28714	50.48	201.95

AWC Residual Waste	Drivers	Loaders	Vehicles	Props/day average	Props/we ek average	Weights/d ay (tonnes)	Weights/we ek (tonnes)
Round 1	1	2	1	1450	5801	18.06	72.24
Round 2	1	2	1	1369	5477	18.06	72.24
Round 3	1	2	1	1470	5882	18.06	72.24
Round 4	1	2	1	1455	5822	18.06	72.24
Round 5	1	2	1	1418	5672	18.06	72.24
Totals	5	10	5	7159	28714	90.3	362





# Our Journey ... Rounds Review - After





#### **Advantages**

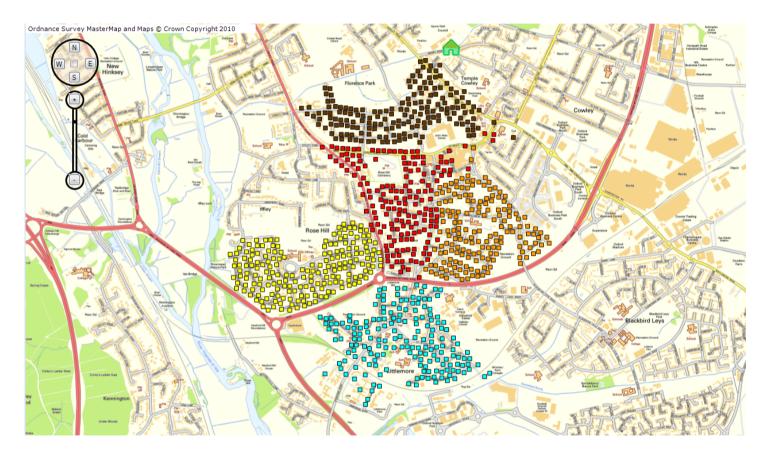
- Financial savings
- Consolidated rounds
- Clearly defined areas
- •Efficient use of vehicles
- 'Buddy System' can operate effectively
- •Lower risk of crews missing households
- •Easier for residents to understand
- Easier to manage
- •Easier to communicate
- •Balanced in terms of number of households and refuse tonnage







#### WEEK 1 – RED - TUESDAY (COMMINGLED RECYCLING)





## **Other Productivity Considerations**

ynvog oxford oxford city council

- Set out
- Participation
- Yields

**EDUCATION!!** 

AND ENFORCEMENT...



#### **Outcomes**

- Three fewer RCVs (crew reallocated across services) this enabled the teams to operate at industry upper productivity outputs
- Savings c. £300K p.a.
- Enforcing the Council's no side waste policy
- The introduction of a co-mingled trade waste recycling service along with evening collections where requested
- Local waste facilities
- Introduction of food waste collections to 30% of households in the City





## **Use of Technology**

- Back office system
- Vehicle Cameras
- Vehicles
- On-board weighing







## **Back Office System**

#### Manages the Collection Rounds

- Maps and Tracks Collection Vehicles
- Integrated to Corporate CRM System
- Links to the LLPG
- Administers Notifications e.g. Assisted Collections, Key Codes etc
- Captures Exceptions e.g. not recycling, non presented
- Back Office/SDA2 In Cab connection real time, two way messaging
- Commercial Waste Operations and Invoicing
- Panic Switches
- Appointments
- Ad hoc Round Management Bulkies, Bin deliveries
- Efficient Routing
- Crew Manage Garden Waste on in cab devices SDA2



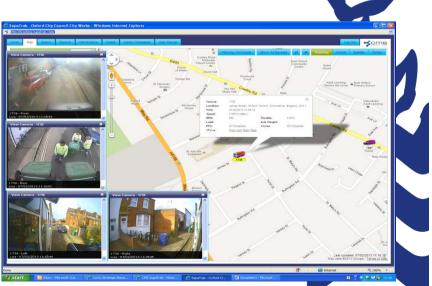


#### **Vehicle Cameras**



- Four Cameras on Vehicle Streaming Live Data
- Viewing Live or Recorded through the CMS portal
- Challenge Missed Bin reports
- Challenge Third Party Collision Claims
- Collision at Fault Evidence
- Heath and Safety Management Live or Recorded Images
- Assists Cycle Awareness
- Assisting with Complaint Reports
- Protecting the Crews
- Gritting Evidence and Viewing





#### **RCV Vehicle**



 Dennis Eagle – 26 Tonne Narrow Body Rear Steer with Terberg Omni Del or DE Beta Lifter



Dennis Connect concept







### **Next Steps?**

- Continued education
- Waste Transfer Station (2017)
- Separate Glass?
- Residual Waste Collection Frequency Review
- Future-proofing for population growth
- Expand commercial collections





## On Board Weighing



- VWS Chassis Weighing assisting the driver
- VWS Commercial Bin Weighing
  - Opportunity to review customer charges
  - Opportunity for customers see their own recycling figures and promote own green credentials
- Integrates with CMS
  - Shows date, time, weight & location of bin
  - Identifies Extra Lifts
  - Reduces Missed Bin Claims



#### **Thank You**



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