



# Food Waste Recycling

David Robertson, APSE Associate



# Scale of Food Waste in UK

- 6.4 million tonnes of household food waste each year, of which 4.7m is consumable.
- 95 kg per person per year, circa one third of household waste.
- Food waste at home was steadily dropping until 2020, spiked during lockdowns and has settled at a higher rate than previously.



## Current Collections and Simpler Recycling

- Half of UK Councils provide food recycling
- 100% in Wales, circa 80% in Scotland and NI
- Simpler Recycling requires all households to have a weekly service by April 2026
- Capital funding has been issued, details of transition and operational funding have been delayed



# **Issues for those implementing new collections**



# 1. Resource planning

- Co-collect?
  - Co-collection with kerbside sort stillage vehicles has good synergy
  - Split body RCVs and pods are more challenging.
- Or standalone service?
  - Offers flexibility and more suited to areas with co-mingled recycling service
  - reduces inefficiencies in routing and impact on other services
  - flexibility to incorporate trade waste and flats
- Same day collection?
  - de-coupling services improves resource efficiency
  - could lead to lower participation and requires good comms



# 1. Resource planning - routing

- Route planning
  - Use route optimisation software to forecast number of rounds
  - Run participation and capture sensitivity analysis to assess the impact of changes
  - Communicate resourcing risks to stakeholders
- Participation is notoriously difficult to predict, ranging from 18% to 80%
- Yield ranges from 1kg per household each week to 2.5kg/hh/wk



Show Layers

- HERE Tiles
- Locations
- No Collection
- Rurality
- Roads
- Lines
- Rate
- Yield
- Type
- Routes
- Arrows
- Rep's
- Streets
- Driving Instructions
- Boundary
- Polygons/Lines
- GPSTrail

Update

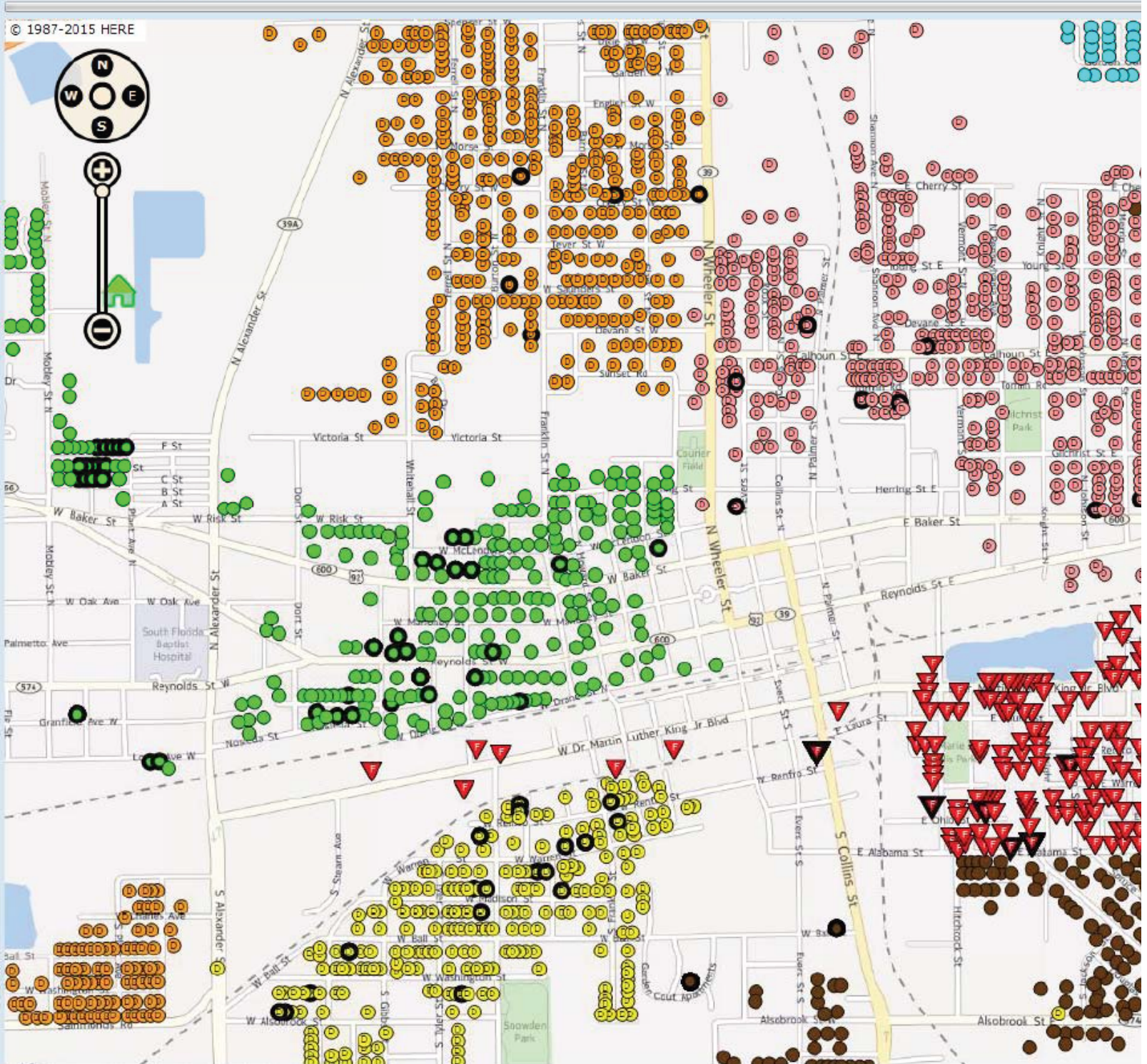
Round (blank=Any)  
  
 With Round

Find  ? Clear

Performance

Display All in Table  Display Selected  
 8.0

169:969 Mon Wkly		<input checked="" type="checkbox"/>	10.49	159.24	865
172:972 Mon Wkly		<input checked="" type="checkbox"/>	5.93	79.63	596
173:973 Mon Wkly		<input checked="" type="checkbox"/>	10.25	158.48	816
174:974 Mon Wkly		<input checked="" type="checkbox"/>	10.12	161.07	763
176:976 Mon Wkly		<input checked="" type="checkbox"/>	9.9	155.76	760
178:978 Mon Wkly		<input type="checkbox"/>	9.93	158.24	744
269:969 Tue Wkly		<input checked="" type="checkbox"/>	8.59	129.34	695
270:970 Tue Wkly		<input checked="" type="checkbox"/>	2.38	53.11	2
272:972 Tue Wkly		<input checked="" type="checkbox"/>	6.1	92.4	516
273:973 Tue Wkly		<input checked="" type="checkbox"/>	5.7	87.55	466
274:974 Tue Wkly		<input type="checkbox"/>	8.89	156.1	575
276:976 Tue Wkly		<input checked="" type="checkbox"/>	6.05	82.08	605
278:978 Tue Wkly		<input type="checkbox"/>	5.83	113.67	246
469:969 Thu Wkly		<input type="checkbox"/>	10.43	157.69	865
472:972 Thu Wkly		<input type="checkbox"/>	6.51	92.45	616
473:973 Thu Wkly		<input type="checkbox"/>	10.78	183.98	702
474:974 Thu Wkly		<input type="checkbox"/>	12.12	199.24	877
476:976 Thu Wkly		<input type="checkbox"/>	10.58	172.16	767
478:978 Thu Wkly		<input type="checkbox"/>	9.82	155.55	744
569:969 Fri Wkly		<input type="checkbox"/>	8.64	130.68	695
570:970 Fri Wkly		<input type="checkbox"/>	2.38	53.11	2
572:972 Fri Wkly		<input type="checkbox"/>	8.28	146.29	524
573:973 Fri Wkly		<input type="checkbox"/>	5.07	72.65	455
574:974 Fri Wkly		<input type="checkbox"/>	5.81	79.06	575







# 1. Resource planning - Actions

- Treat this as a corporate risk – financially and project delivery
- Manage the risk through effective planning, including route optimisation and scenario planning
- Use available data and expertise to plan rounds, then use real-life data to adjust routes and resourcing



## 2. Vehicle purchases





## 2. Vehicles

- Current waiting times 9-12 months
- 7.5 tonne and 12 tonne chassis are very popular
- Most suppliers are combining a chassis/cab of your choice with a body, tailored to your requirements
- Electric and hybrid vehicles are available, but not very popular, mainly due to cost and excessive weight
- Steel rots! Consider aluminium and plastic bodies
- Vehicle cabs are compact, so choose wisely



## 2. Vehicles - Actions

- Begin procurement immediately, there is still time, but don't get caught in the scramble for vehicles
- Choose your chassis and cab wisely, include front line staff and ask for demo vehicles
- Order now for future delivery. Suppliers are being flexible but also need to plan, so helping them will keep costs low

### 3. Material processing

- Anaerobic digestion is most likely option, currently over 350 operating in the UK but most are small
- Market prices range from £75/t cost to £35/t revenue, typically £20-25/t
- Estimated 3.4 million tonnes capacity in England, 2.6mt currently used, 800,000 tonnes capacity in North of England



### 3. Material processing - Actions

- Do not approach procurement as a simple price and quality scoring
- Financial stability and environmental compliance are more important than price, support your supplier to achieve this through long term and sustainable contracts
- Actively manage suppliers, developing your own skills in compliance





## 4. Containers

- Limited supplier base and shortage of production capacity
- Durable containers cost more, but container delivery costs more than purchase when replacing, so don't procure on price
- Distribution will almost certainly need to be in-house, but some distribution companies may be able to take this on

## 4. Containers - Actions

- Procure early, using framework prices and mini competitions
- Invest in customer facing systems which digitize and automate container replacement
- Avoid the expense of compostable and biodegradable bags (discuss!)
- Consider bright colours!



## 4. Communications

- The first and second rule of communications is 'go digital'
- Use customer facing IT systems to enable customers to report issues
- Keep it simple and direct
- Be positive and give recognition to people's effort
- Link to climate change, healthy living, food waste reduction





12:20 [status icons]

### My Schedule

10 Leman Grove, Loddon, NR14 6LH

Next Collection

**Friday, November 29, 2024**

Rubbish

Future Collections

**Friday, December 6, 2024**

Recycling

**Friday, December 13, 2024**

Rubbish

12:31 [status icons]

### My Schedule

**Friday, December 6, 2024**

Recycling

Recycling bins need to be placed out for collection by 6:30am. Bins should be presented for collection on or by the edge of the public highway unless you have an assisted collection in place.

Recycling must be:

- \* clean - please rinse containers and do not put in any food leftovers
- \* loose - please do not put anything in plastic bags or black bin liners
- \* dry - please ensure the bin lid remains shut

**Acceptable items**

Find out how to reuse, recycle or dispose of a waste material.



# Conclusions





- Act now to secure vehicles, containers and processing sites
- Treat your suppliers as partners
- Food waste has a range of real risks and likely failures, respond by being risk aware, not risk averse
- Brief your members and senior stakeholders so they understand the risks and how these are being managed
- Be prepared for unpredictable operating costs, resulting from unknown householder behaviour

# **NEW MUNICIPALISM**

Delivering for local people and local economies



# David Robertson, APSE Associate

David@dr-consulting.uk

