



Commercial Food Waste Progression

Dundee City Council - March 2014

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Background

Waste (Scotland) Regulations 2012

Businesses:

- Must present metal, plastic, glass, paper and card separately for collection from 1 January 2014.
- If you produce over 50kg of food waste per week, you must present it for separate collection from 1 January 2014.
- The requirement to present food waste for separate collection will extend to all food businesses which produce over 5kg of food waste per week from 1 January 2016.

DCC Commercial Profile

Pre 2014 Customer Base – Approx 2100 customers (bins & bags)

Prior to 1st January 2014, commercial collections available for:

- Residual waste
- Paper
- Metals
- Plastic
- Glass
- Garden waste

1st January 2014 onward profile included food waste collections

Research

Sources

1. Local Authorities

- Visits to those who have commenced food waste collections
- Issues (eg manual handling of 240 litre bins)
- Solutions (eg replace 240 ltr bins with 140 ltr bins)

2. Seminars/Workshops

- ZWS, aimed at Local Authorities AND businesses

3. Online Data

- WRAP, ZWS, SEPA

Customer Analysis

Why - to identify customers subject to the 2014 regulations (>50kg/week)

Methodology/Data Sources:

- Experience and knowledge of commercial team
- ZWS '*waste by business type*' guidelines
- WRAP '*Material Bulk Densities*' guidelines

*** Around 5% of our current customers required a '2014' food waste collection service under the new regulations**

Analysis Extract

Food Waste

Will the Customer Require Food Waste Provision? (Qualify for food)		Bin Recommended by Team		Total Estimated Weekly Weight of Food Waste	Weekly Weight of Collectable Food Waste			Bin Size & Weekly Collection Frequency		Number of Bins Required to accommodate a weekly collection cycle		
					Food Waste Capture Rate (67%, expressed as a decimal for calculations)	Collectable Food Waste (weight in kg after application of capture rate)	Weight of a 140 litre bin which is full (75%) of food waste (kg)	Weight of a 500 litre bin which is full (49%) of food waste (kg)	140			500
Yes	1	Yes	1	270.4	0.67	181	52.5	122.5	4		4	140l
Yes	1	Yes	1	270.4	0.67	181	52.5	122.5	4		4	140l
Yes	1	Yes	1	181.9	0.67	122	52.5	122.5	3		3	140l
		Yes	1				52.5		0		0	140l
Yes	1	Yes	1	270.4	0.67	181	52.5	122.5	4		4	140l
Yes	1	Yes	1	270.4	0.67	181	52.5	122.5	4		4	140l
Yes	1	Yes	1	284.6	0.67	191	52.5	122.5	4		4	140l
		Yes	1				52.5		0		0	140l
Yes	1	Yes	1	270.4	0.67	181	52.5	122.5	4		4	140l
Yes	1	Yes	1	270.4	0.67	181	52.5	122.5	4		4	140l
Yes	1	Yes	1	267.1	0.67	179	52.5	122.5	4		4	140l
Yes	1	Yes	1	516.2	0.67	346	52.5	122.5	7		7	140l

Customer Engagement

Why :

- To inform customers of their legal obligations
- To advise customers of the available DCC food waste service
- To maintain and develop customer relations
- To maximise income generation

How :

- Face to face meetings
- Telephone
- Mail

When :

- Commenced mid to late 2013

Collaborative Working

Stakeholders:

- Tayside Contracts
- Education Department, Dundee City Council
- Commercial customers

Why:

- Establish best practice / develop professional service
- Learn from their (Tayside Cont.) experience in other authorities
- Introduction of food waste collections to schools and nurseries
- Address operational issues (as they affect each party)

Trials (1)

Who:

- Tayside Contracts / Education Department, Dundee City Council
- Commercial customers

Terms of Reference:

- To highlight issues and develop solutions
- To highlight training needs
- To examine operational implications (all parties)
- To prepare for forthcoming collections

Trials (2)

Trial 1 - Tayside Contracts / Education Department (schools)

- **Establishment sample**
 - production kitchen, serve only kitchen
 - old / new buildings
 - modern/dated facilities
- **Suitable Container Provision**
 - 140 or 500 ltr ?
- **Operational issues**
 - manual handling
 - storage areas
 - vehicular access

Trials (3)

Trial 2 - Commercial Customer

- Large Restaurant
- Container Provision
- Staff Training / Issues
- Storage / presentation issues

Trial Results (Schools & Commercial):

- Establish appropriate container provision
- Develop staff training requirements (internal & external)
- Develop presentation / collection solutions

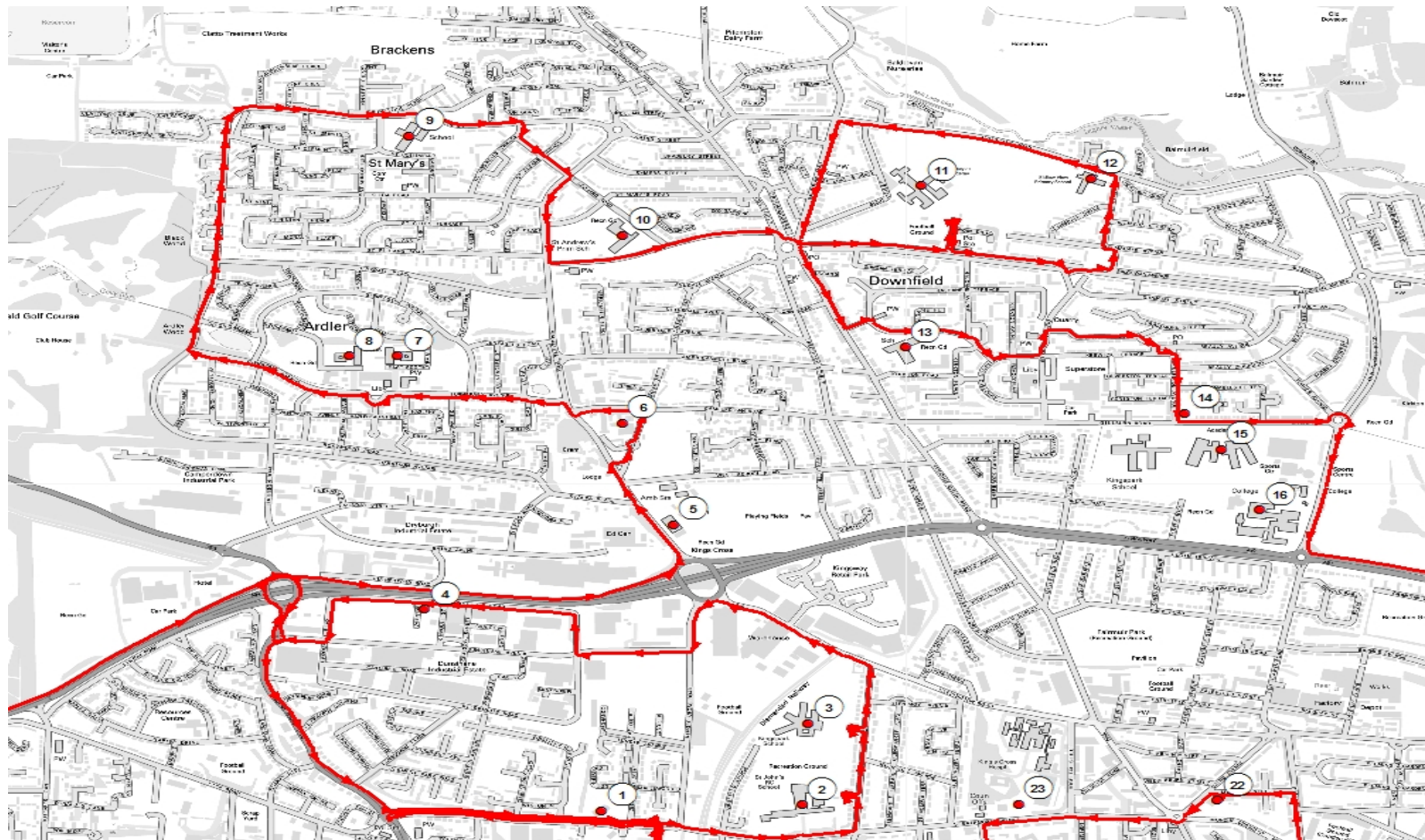
Service Provision

Resources:

- Vehicle – standard RCV (26t)
- Staffing – driver and loader
- Containers – 140 & 500 ltr
- Current collection frequency – Up to twice per week
- Processor – AD plant, TEG

Routing

Routesmart - Route Optimisation Software



- 1) **Woodlea Primary**
45 Harefield Road
- 2) **St Johns High**
Harefield Road
- 3) **Kingspark School**
Glenaffric Terrace
- 4) **Novartis**
1 Valentines Court
- 5) **Fire Station**
Macalpine Road
- 6) **Turriff House**
4 Rannoch Court
- 7) **Ardler Primary**
Turnberry Avenue

Problems & Solutions

Examples:

Problem : Overfilling of bins creating manual handling issues

Solution : Deliver additional training and monitor thereafter

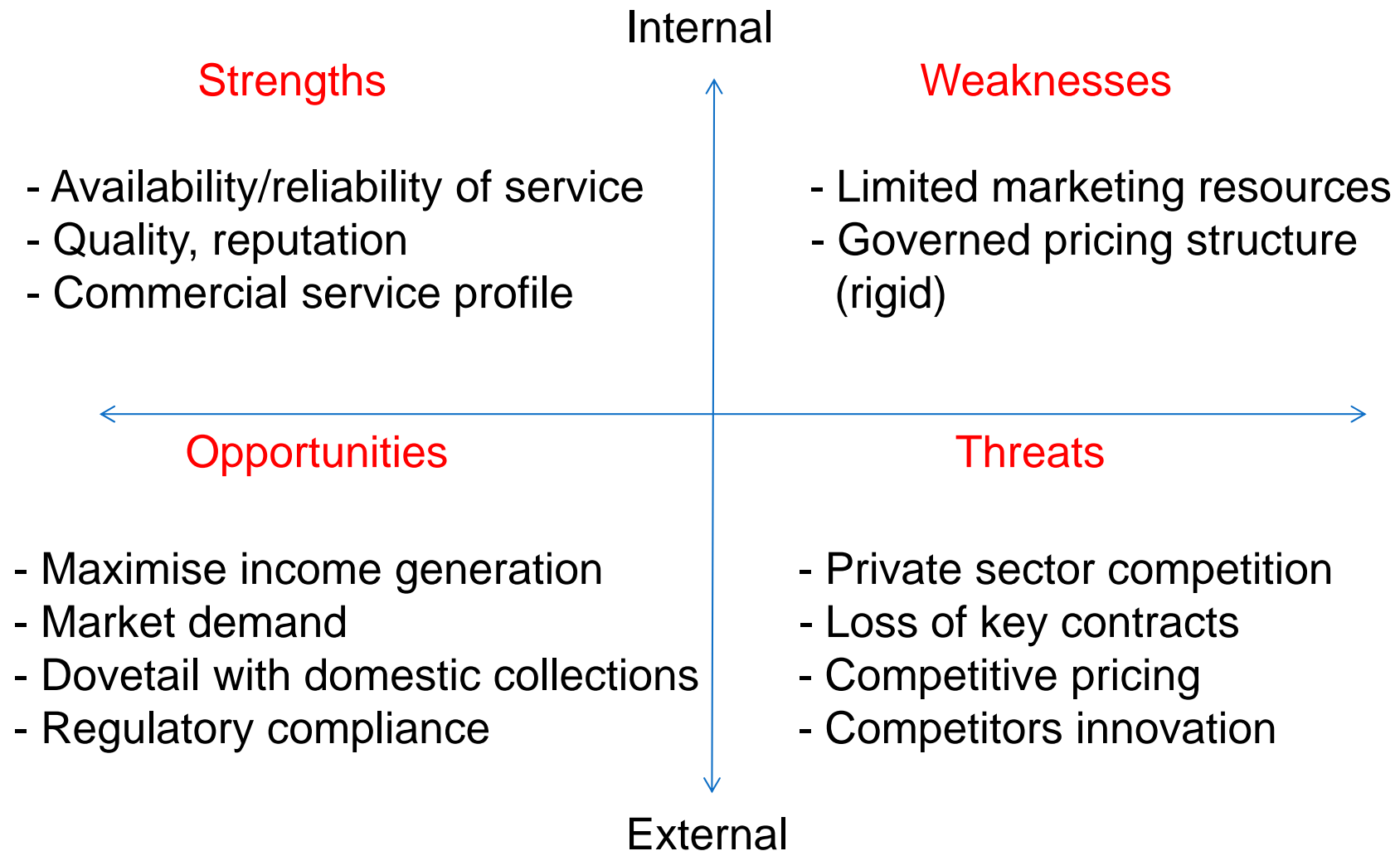
Problem : Kitchen staff misuse of system

Solution : Deliver additional training and monitor thereafter

Problem : Ensure safe vehicular access at schools and nurseries

Solution : re-route to incorporate time windows to avoid specific times (effect on route efficiency)

SWOT



Summary

The Process

- Background, research & analysis

Collaborative Working

- Development of positive stakeholder engagement

Service Profile

- Vehicle, staffing, routing, container provision

** Look forward to planning the 2016 implementation programme **



Questions?

Environment Department, Dundee City Council