

To: City Executive Board

Date: 18 February 2008

Item No:

Report of: Head of City Works

Title of Report: Review of Waste and Recycling Collection Services

Summary and Recommendations

Purpose of report: Provide a recommendation for implementing food waste collections to improve the waste and recycling collection service in Oxford City.

Key decision? No

Executive lead member: Cllr John Tanner, Cleaner, Greener Oxford Board Member

Report approved by:

Finance: Andy Collett

Legal: Lindsay Cane

Policy Framework: Oxfordshire Waste Partnership Joint Municipal Waste Management Strategy.

Oxford City Council Corporate Plan: Improve the local environment, economy and quality of life

Recommendation(s): That the City Executive Board agrees to:

- Approve the proposed method of food waste collections on a fortnightly basis.
- Approve the business case and consent to proceed with mobilisation for implementation of the system on 1 October 2009.
- Note that in 2009/10 the costs identified in the business case will be met from within existing City Works budgets, subject to securing Oxford Waste Partnership New Initiative Funding (NIF).

1. Background

1.1 At the November 2008 meeting of the Board a project brief in respect of waste and recycling was approved. Officers have been working to develop options to improve the waste and recycling service, including implementing food waste collections. This has involved soft market testing of disposal costs and public consultation. The results of these are reported in the Business Case.

1.2 The review and associated business case is based on 45,000 households. It also includes a proposed pilot scheme for including 2,000 of flats in food waste collections.

1.3 Under Oxford City Council's medium-term financial strategy, City Works must undertake a fundamental service review during 2009-10 to achieve savings of £300,000 per annum. The introduction of any new initiatives during this period must take into consideration the impact on future budgets. Therefore, any change must be low cost and added to current operations without fleet alterations or high capital costs. This will enable a holistic review of the waste management provision for the city.

1.4 An issues report was submitted to the Value and Performance Scrutiny Committee for their January 2009 meeting. This report detailed five options for improving the service and implementing food waste collections. These options are attached as Appendix B.

1.5 Food waste collection is an Oxfordshire Waste Partnership (OWP) priority and funding bids from waste collection authorities will be given priority for the New Initiatives Fund and associated Local Area Agreement (LAA) reward grants.

1.6 The OWP has submitted a LAA I reward grant bid for food waste collections and each waste collection authority has an opportunity to bid for approximately £200,000 should this be secured. This would dramatically reduce the costs of implementing a new scheme by covering a substantial portion of start-up costs, including funding food waste containers.

1.7 Over this period, instability in the financial markets have spread to the waste and recycling markets making this a difficult time to create a business case with a high degree of confidence. Prices for most recyclable materials have fallen sharply. However, the disposal of food waste by composting treatments appears to be stable and we have cost-certainty through the County Council's newly procured outlet.

1.8 Oxford City Council officers have considered comments from the Scrutiny Committee in preparing the Business Case. This Business Case presents the recommended option of alternate weekly collections of food waste in addition to the current waste and recycling collection service. This is option will contribute to achieving OWP and LAA II recycling targets and avoiding LATS penalties, while being low cost to Oxford City Council.

1.9 The proposed option is very flexible and will not close down any solutions in the fundamental review of City Works. It would allow for expansion to weekly food waste collections in the future. It also allows for a move to a simplified recycling system, as it relies only on garden waste vehicles that are already passing households in the city for food waste collections, as identified in the Business Case.

2. Equalities issues

There are no implications contained within the attached documents that are prejudicial against any individual or group.

3. Climate Change Implications

The projects make contributions to the corporate priority to tackle climate change and promote environmental resource management by diverting putrescible waste from landfill and increasing Oxford City's recycling rate. For every tonne of food waste diverted from landfill, Oxford City Council will avoid an estimated 4.5 tonnes of CO2 equivalent emissions.

4. Legal issues

Where the implementation of the matters set out in this report require the Council to purchase goods or services, the Council will follow all relevant procurement procedures

5. Financial issues

The Business Case includes an outline of financial issues in respect of the projects and the bid to the OWP New Initiative Fund.

6. Risk Management

The Project Brief includes an outline of major risks and mitigates in respect of the projects.

7. Recommendations

That the City Executive Board:

- Approve the proposed method of food waste collections on a fortnightly basis.
- Approve the business case and consent to process with mobilisation for implementation of the system on 1 October 2009.
- Note that in 2009/10 the costs identified in the business case will be met from within existing City Works budgets, subject to securing Oxford Waste Partnership New Initiative Funding (NIF).

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Appendices:

1. Appendix A: Business Case – Review of Waste and Recycling Collection Services
2. Appendix B: Options Appraisal

Background Papers: None

1. Project brief – Review of Waste and Recycling Collection Service, submitted to CEB 26 November 2008.
2. Issues Report - Review of Waste and Recycling Collection Service, submitted to Values & Performance Scrutiny Committee 15 January 2009.

Business Case – Review of Waste & Recycling Collection Services

Reference number:

Project Title: *Review of Waste & Recycling Collection Services*

Date:

Responsible Board: *City Executive Board*

Executive Board Member: *Councillor John Tanner*

Links to OCC Priority:

- *Improve Oxford's environment, economy and quality of life*
- *Tackle Climate Change and promote environmental resource management*

Sponsor: *Colin Bailey, Head of City Works*

Project Manager: *Philip Dunsdon*

Project Administrator: *Peter Dobson*

Version No: 1.0

Approvals:

1. Cllr John Tanner, Board Member
2. Tim Sadler, Director City Services
3. Andy Collett, Finance
4. Lindsay Cane, Legal

Distribution:

- 1.
- 2.
- 3.

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1. Background

1.1 The introduction of kerbside recycling combined with fortnightly residual waste collections has been a success in Oxford City. Recycling rates have risen from 19.35% in financial year 2005/06 to 38.87% in the year to November 2008 (NI 192: household waste reused, recycled, or composted). The waste tipped to landfill has also decreased from 37,388 tonnes in 2005/06 to 34,999 in 2007/08 (NI 191: residual waste per household). Oxford City Council throws away less rubbish per household than anywhere in the South East according to DEFRA, and comes in fifth in a nationwide league table for throwing away the least household waste.

1.2 The City Executive Board approved a project brief in November 2008 requesting permission to work up a detailed business case presenting options to improve the service. This business case outlines the recommended option from officers in conjunction with risks and opportunities that can be realistically achieved.

1.3 Oxford City Council must add a food waste collection service to meet Local Area Agreement II (LAA II) and Oxfordshire Waste Partnership (OWP) recycling targets and avoid Landfill Allowance Trading Scheme (LATS) penalties. The project needs to integrate food waste in a way that is acceptable to the public and is cost-effective.

1.4 The Oxfordshire County Council has procured a contract for the disposal of food waste for all five districts in the County. These facilities will be available locally in October 2009, and interim arrangements will be available from April 2009. The facilities will allow for disposal through in-vessel composting and anaerobic digestion.

1.5 It is an OWP priority to introduce a food waste collection service. As the host authority for the Oxfordshire Waste Partnership, Oxford City must help mitigate exposure to LATS penalties on behalf of its partners and Council Tax payers. All of the Oxfordshire Waste Partnership authorities intend to implement food waste collections by 2009/10, and this will be funded with LAA I Rewards Grant funding, which is to be dedicated to a food waste collection across the partnership. Oxford City Council is confident that this funding will be available to mitigate the capital cost of its introduction, but this has not yet been approved.

2. Project Definition

2.1 Project Objectives

Oxford City Council hopes to achieve a number of objectives in improving the waste and recycling service.

- **Simplicity:** Provide a simple system that is easy for residents to understand and use, thereby removing barriers to recycling participation.
- **Expand recycling/composting:** Expand the materials in current collections, most importantly food waste.
- **Value for money:** Provide a quality service at the best value for residents.
- **Increase rates of recycling** from current 38% to meet LAA II and OWP targets.
- **Send less waste to landfill**, reflecting increased rates of recycling and avoiding LATS penalties.
- **Decrease carbon footprint:** Target of 5% over existing service including impact of putrescible wastes.
- **Mitigate risks** in volatile recycling markets.
- **Adopt technical solutions** as a result of soft-market testing process.

2.2 Project Scope: Covers the whole waste and recycling service for 45,000 households, as well as a proposed pilot scheme for including 2,000 flats in food waste collections.

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2.3 Project deliverables:

- Cost, including the financing of capital expenditure through prudential borrowing/grant funding
- Recycling rates improved by at least 2% by 2010-11 to enable the OWP to meet its targets and associated reward grants.
- Reduced carbon footprint. Target of 5% over existing service including impact of putrescible wastes.
- Reduced amounts of waste sent to landfill – reflecting increasing recycling rates

2.4 Project desired outcomes:

- Improved public satisfaction

2.5 Constraints:

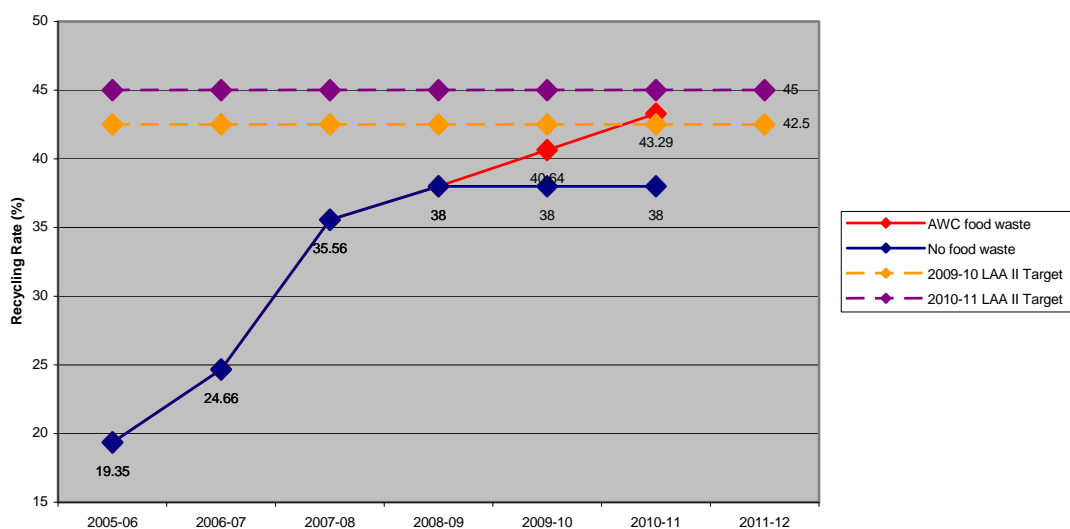
- Medium Term Financial Strategy
- Oxfordshire Waste Partnership New Initiative Funding approval

3. Initial Business Case

3.1 City Works currently provides containers for four types of household waste: green wheelie bins for residual waste, blue boxes or bins for commingled recycling, green boxes for glass and high quality paper, and a green Hessian sack for garden waste. Residents in houses with very limited space receive lilac sacks for residual waste, blue sacks for commingled recycling, and green boxes for glass.

3.2 Research shows that the Oxfordshire Waste Partnership must implement food waste collections to achieve its medium-term waste reduction and recycling targets.¹ The chart below shows projections for Oxford City's recycling rates with no food waste collections and with the recommended alternate weekly food waste collections for all household residents. Alternatively, the Council could phase food waste collections in more gradually by implementing food waste collections by area or providing food waste caddies to residents on a voluntary basis. However, this would affect performance in the short-term and lose economies of scale.

Projected Recycling Rates with Food Waste Collections



3.3 Officers propose to add a food waste collection onto the existing refuse and recycling collection service. Collections would occur every fortnight. Residents would present their

¹ WRAP, The Food We Waste, March 2007

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waste in a 21-litre kerbside caddy with a secure lid, and would be instructed to wrap food waste in newsprint, paper bags, biodegradable sacks. Additionally, Oxford City Council could offer brown bins for food and garden waste to residents for a cost of £35. There would be no start-up costs to the City Council to do this, as the charge would cover the cost of the bins.

3.4 The food and garden waste would be collected together in a Refuse Collection Vehicle (RCV) and sent to an in-vessel composting facility at Ardley, where biodegradable waste is composted in an enclosed vessel, allowing for the processing of both food and garden waste.

3.5 Officers have also developed a range of other options for improving the service and implementing food waste collections. An issues report detailing these options was submitted to the Value and Performance Scrutiny Committee for their January 2009 meeting. These options are attached for reference as Appendix B.

3.6 Flats: A pilot food waste collection for flats could also be implemented in October 2009, and would provide valuable information for implementing food waste for all flats in the City in the future. Pilot food waste collections for flats would include 2,000 flats (or approximately 200 flat sites) across the City chosen by Oxford City Council. The flats chosen will be easy and economically efficient for the garden waste rounds to visit, would already be converted onto alternate weekly collections, and would have space to accommodate an additional bin.

3.7 Residents living in pilot flats would be provided with a 7-litre kitchen caddy for transporting their food to a communal bin. Each site would be provided with a sufficient number of locked and sealed 240-litre communal containers. The pilot would be rolled out on 1 October 2009, in conjunction with the food waste collections for households, and would continue until March 2010, when a further business case would be produced in April 2010 in conjunction with the City Works Fundamental Service Review. This business case would look to expand food waste collections to a significant number of flats, subject to funding availability.

3.8 Objective appraisal

- Simplicity: Maintains existing recycling system, and simply adds a food waste caddy.
- Expand recycling: Implements food waste collections.
- Value for money: Low cost, £15.50 per tonne.
- Meet recycling targets: City Council projected recycling rate of 43.3% in 2010-11. Will meet OWP targets of 40% and will help achieve LAA II targets of 45% in 2010-11 (NI 192: household waste reused, recycled, or composted).
- Send less waste to landfill: Diverts 2,500 tonnes of food waste from landfill, assuming 1.07 kg food waste per household per week (NI 191: residual household waste per household).
- Decrease carbon footprint: Adds a new collection service while maintaining the current size of the domestic vehicle fleet and diverts 2,500 tonnes of food waste. For every tonne of food waste diverted from landfill, Oxford City Council will avoid an estimated 4.5 tonnes of CO₂ equivalent emissions.²
- Mitigate risks in the recycling market: Food waste outlet cost certainty is guaranteed.
- This solution does not constrain the outcome of soft-market testing that a holistic review of waste and recycling may identify as part of the City Works fundamental service review.

3.9 Other benefits:

- The proposed option is very flexible, as it would allow for expansion to weekly food waste collections in the future. It also allows for a move to a simplified recycling system, as it only relies on garden waste vehicles that are already passing households in the city for food waste collections.
- The option could increase public satisfaction by providing the option for residents to dispose of food waste every week (one week in their food waste caddy, the next week in their refuse bin as they do now).

² WRAP, The Food We Waste, March 2007

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3.10 The Council have conducted a thorough public consultation process, including:

- A complete Talkback exercise dedicated to Waste and Recycling.
- Public survey in the November 2008 issue of Your Oxford
- 2 public meetings in November 2008

3.11 Results from the Talkback Panel survey indicate:

- Mixed views on the three-bin system proposal (with alternate weekly collections of food waste): approximately 40% of talkback respondents ranking the system negatively (1-5) and 60% ranking it positively (6-10). The average ranking was 6 out of 10.
- Over 80% of talkback respondents said their understanding of what materials go in which containers was either "very good" or "quite good", although 26% of respondents reported that they found the system "complex".
- 64% of respondents had issues with the waste and recycling service in their street, mainly relating to boxes and sacks blowing away or over spilling, or untidiness by refuse collectors.
- 57% of respondents reported that their current recycling containers were sufficient for their quantity of recycling. However, 65% would prefer one wheelie bin for all their dry recyclables to the current system.
- 54% of respondents reported that the three-bin system would work for them.
- 68% would not prefer a wheelie bin for garden waste and only 9% would be prepared to pay for one.
- The panel was not specifically asked whether they preferred weekly or fortnightly collections of food. However, when asked to provide suggestions for improving the service, the top ranked priority was more frequent collection for refuse and recycling that could cause sanitation issues.

4. Risks and Uncertainties

4.1 There are a number of risks in implementing this scheme, the principal ones being:

Risk & Description	Likelihood	Impact (High/Medium/Low)	Counter Measures
Future changes to the service	Medium	Medium	The proposed option would allow for expansion to weekly food waste collections in the future. It also allows for a move to a simplified recycling system, as it only relies on garden waste vehicles for food waste collections.
Availability of local outlets	Low	Low	A County-procured outlet for disposal of food waste will definitely be available in 2009 and will be cost-neutral to Oxford City Council.

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Consequences for missing LATS or LAA II targets.	Medium	High. All reward grants (£20/tonne) are linked to meeting LAA II targets (45% for 2010-11). Oxfordshire County Council will face up to £150 per tonne fines from 2009/10 if it misses LATS targets (unlikely in the first year judging by current OWP performance).	Food waste collections will help allow Oxford City Council to meet both targets.
Participation rate lower than anticipated, leading to lower tonnages of food waste diverted from landfill.	Medium in short term, participation likely to increase as residents become accustomed to the scheme.	High	Planning local educational campaigns and enforcement.
Cost of food waste caddies may rise.	Low, as prices for raw materials are falling.	Medium	Market testing a number of outlets to ensure the best value.
Complexity of the system will increase by adding food waste collections.	High	Low	Planning local educational campaigns and enforcement.
Volatility of the recycling commodity market may affect service costs.	Medium	High	Continue to work with outlets to ensure best value.
Future changes to the service	Medium	Medium	The proposed option would allow for expansion to weekly food waste collections in the future. It also allows for a move to a simplified recycling system, as it only relies on garden waste vehicles for food waste collections.

5. Timescales

5.1 City Works could implement a new scheme on 1 October 2009.

5.2 This will require permission to procure containers on receipt of New Initiative Fund (NIF) funding from the OWP.

6. Acceptance Criteria

6.1 Meets corporate objectives to increase recycling and decrease landfill.

6.2 Implements food waste collections in accordance with OWP Action Plan.

6.3 Delivers value for money as no increase in service vehicles is required.

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7. Costs

Currently, the garden waste service operates 3 RCVs for garden waste collections. Under the proposal, all 3 garden waste vehicles would be used to collect mixed garden and food waste vehicle, along with 1 additional RCV purchased for this service, for a total of 4 RCVs. The domestic fleet total would increase from 12 to 13 RCVs. One additional loader would also be added to support the existing crews.

The revenue cost of the additional vehicle would be part-funded from efficiency savings of removing one kerbsider vehicle from the fleet in October 2009 as a result of efficiencies made in the recent rounds review. Domestic fleet total would decrease from 5 to 4 kerbsiders.

Three of the existing kerbsiders are due for replacement in 2009/10 in the Vehicle Replacement programme at a total estimated cost of £330,000. The RCV is estimated to cost £135,000 in total; it is proposed therefore to amend the programme to effect this change with no additional capital resources for vehicles being required.

. Indicative costs are based on 45,000 households. Prudential borrowing calculated at seven years for food caddies.

VEHICLES	
Container	Vehicles
Refuse	6
Green Box	4
Blue Box	3
Garden/ Food	4
	17

START-UP COSTS: OCT 2009-MAR 2010					
Capital Costs					
	Unit Cost	Households	Total Cost	OWP Funding	OCC Share
Kerbside Food Caddy (21 litre)	£3.50	45,000	£157,500	£157,500	£0
Capital Total			£157,500	£157,500	£0
Capital Cost of RCV offset by removal of 1 kerbsider from the domestic fleet (efficiency savings)					
Revenue Costs					
	Unit Cost	Number	Total Cost	OWP Funding	OCC Share
Caddy Delivery	£0.50	45,000	£22,500	£0	£22,500
Publicity	£1	45,000	£45,000	£36,000	£9,000
Project Field Officer (2 for 6 months)	£31,800	1	£31,800	£10,688	£21,112
Admin Support (1 for 6 months)	£27,700	0.5	£13,850	£0	£13,850
Revenue Total			£113,150	£46,688	£66,462

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OPERATIONAL COSTS						
Additional Revenue Cost - Vehicles						
	Unit Cost	Current	Proposed	Extra	Cost: Oct 2009 - Mar 2010	Cost: Apr 2010 - Mar 2011
RCVs	£52,000	12	13	1	£26,000	£52,000
Kerbsiders	£37,000	5	4	-1	-£18,500	-£37,000
Fuel - RCV (£1.05/litre)	£22,050	12	13	1	£11,025	£22,050
Fuel - Kerbsider (£1.05/litre)	£8,400	5	4	-1	-£4,200	-£8,400
Total					£18,525	£37,050
Additional Revenue Cost - Prudential Borrowing of Containers						
					Cost: Oct 2009 - Mar 2010	Cost: Apr 2010 - Mar 2011
Cost of Borrowing on £157,500 over 7 years					£0	£24,930
Total					£0	£24,930
Additional Revenue Cost - Operatives						
	Unit Cost	Current	Proposed	Extra	Cost: Oct 2009 - Mar 2010	Cost: Apr 2010 - Mar 2011
Drivers	£27,700	17	17	0	£0	£0
Loaders	£24,600	34	35	1	£12,300	£24,600
Total					£12,300	£24,600
Additional Revenue Cost - Gate Fees						
Material	Tonnes	Current	New	Extra	Cost: Oct 2009 - Mar 2010	Cost: Apr 2010 - Mar 2011
Garden	3,360	£20	£0	-£20	-£33,600	-£67,200
Food	2,500	£0	£0	£0	£0	£0
Total					-£33,600	-£67,200
Credits & Incentive Payments						
Material	Tonnes	Credits: £40/tonne	Incentive: £20/tonne		Cost: Oct 2009 - Mar 2010	Cost: Apr 2010 - Mar 2011
Garden	3,360	£134,400	-£67,200		£33,600	£67,200
Food	2,500	£0	-£50,000		-£25,000	-£50,000
Total					£8,600	£17,200
					Total Rev. Cost Oct 09-Mar 10 (including start-up & operational rev. costs)	Total Revenue Cost Apr 10-Mar 11
ADDITIONAL REVENUE COSTS IDENTIFIED					£118,975	£36,580
OWP FUNDING*					£46,688	£24,930
ADDITIONAL REVENUE COSTS TO OXFORD CITY COUNCIL					£72,287	£11,650

*OWP funding for Oct 09-Mar 10 includes part-funding for publicity (£36,000) and project field officers (£11,000). OWP funding for Apr 10-Mar 11 covers prudential borrowing costs, as caddies will be purchased using OWP capital funding.

7.5 There are opportunities for external funding through the Oxfordshire Waste Partnership. Oxford City Council is submitting a New Initiative Fund (NIF) proposal of **£204,188** to cover a substantial portion of the scheme's start-up costs, including the cost of the kerbside food caddies, publicity, and project field officers. This would eliminate all start-up capital costs. It would reduce the funding required between October 2009 and March 2010 to **£72,287** by reducing field officer and publicity costs. It would reduce year-on-year costs (beginning April 2010-March 2011) to **£11,650** by eliminating prudential borrowing costs for containers. City Works will fund these remaining costs through efficiency savings made in existing budgets. This scheme relies upon the NIF bid being successful.

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7.6 Flats: City Works would incur additional costs for including pilot food waste collections for flats in this scheme. As discussed in Section 3, this would include capital costs for kitchen caddies and communal sealed and locked 240 litre bins, as well as additional publicity costs and costs for bin-cleaning at OCH properties. City Works would not expand its fleet beyond the four garden / food waste vehicles proposed in this business case. The pilot must be limited to 2,000 flats in order to ensure sufficient capacity on the vehicles.

7.7 Implementing the flats pilot would increase total costs to Oxford City Council to £78,587 in 2009/10 and £20,954 in 2010/11. The additional costs for this pilot shown below would also be covered through efficiencies made in existing recycling budgets. City Works will continue to evaluate options and explore funding for expanding food waste to a significant number of flats, and will provide a full business case to the City Executive Board within six months of implementation (April 2010). Any expansion of the scheme would be subject to available funding.

Capital Costs - Flats Pilot			
Item	Unit Cost	Number	Total
Sealed 240 litre wheeled bins	£25.00	200	£5,000
7 litre food caddies	£1.18	2,000	£2,360
Total			£7,360

Revenue Costs - Flats Pilot				
	Unit Cost	Number	Cost: Oct 2009 - Mar 2010	Cost: Mar 2010 - Apr 2011
Estimated Prudential Borrowing - Containers			£0	£1,104
Bin delivery	£1.00	200	£200	£0
Estimated Bin Cleaning Costs - OCH properties	£5.00	1,200	£3,000	£6,000
Food - Incentive Payments (£/tonne)	£20.00	110	£1,100	£2,200
Publicity	£1.00	2000	£2,000	£0
ADDITIONAL REVENUE COSTS IDENTIFIED			£6,300	£9,304

7.8 The responsibility for LATS penalties associated with domestic waste are the responsibility of the County Council and will not be levied directly on the district authority. However, as the host authority for the Oxfordshire Waste Partnership, Oxford City must help mitigate exposure to LATS penalties on behalf of its partners and Council Tax payers. All of the Oxfordshire Waste Partnership authorities intend to implement food waste collections by 2009/10.

7.9 Following implementation of food waste collections, Oxford City Council will review the refuse collection vehicle fleet to evaluate if further efficiency savings can be made.

8. Interfaces

8.1 This project works in conjunction with the existing policy of alternate weekly collections and commingled recycling.

9. Whole Life Cost / Sustainability

9.1 Environmental impacts: This project will benefit the environment by increasing the Council's recycling rate, decreasing putrescible waste sent to landfill, and decreasing the Council's carbon footprint.

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9.2 Economic impacts: The economic impacts of this project are relatively low, as much of the costs are covered through efficiency savings or through potential funding from the OWP.

9.3 Social impacts: Provision of food waste collections could have positive social impacts by providing residents with an option to dispose of food waste every week. This could improve the local environment (fewer overflowing bins, reduced problems with odours).

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Appendix B: Options Appraisal

All options are currently based on 45,000 households, excluding flats.

- Three-bin system (holistic approach for those properties with sufficient space to store three wheeled bins)
 - o Option 1: Three-bin system with alternate weekly collections of food. Food waste would be collected on garden waste round for invessel (closed container) composting.
 - o Option 2: Three-bin system with weekly collections of food. Food waste would be collected on weekly garden waste round for invessel composting.
- Food waste collections in addition to existing service.
 - o Option 3: Alternate weekly collections of combined food and garden waste. Food waste would be collected on garden waste round for invessel composting.
 - o Option 4: Weekly food waste collections in addition to existing service. Food waste collected on green box (paper/glass) rounds in week 1 for anaerobic digestion (decomposing in the absence of oxygen) and the garden waste round on week 2 for invessel composting.
- Option 5: Do nothing in 2009/10 and focus on a major change in 2010/11.

Options Appraisal

Objective	Option 1	Option 2	Option 3	Option 4	Option 5
Simplicity	Yes	Yes	No	No	No
Containment	Yes	Yes	No	No	No
Expand recycling / implement food waste	Yes	Yes	Yes	Yes	No
Value for money	£132.66/tonne recycled	£194.77/tonne recycled	£14.63/tonne recycled (lowest cost)	£58.60/tonne recycled (lowest cost while meeting LAA II targets)	N/A
Meet LAA II recycling rate targets (45% in 2010/11)	43.3%	46.5%*	43.3%	46.5%*	38%
Send less waste to landfill	2500 tonnes food waste	4000 tonnes food waste	2500 tonnes food waste	4000 tonnes food waste	No
Decrease carbon footprint	Decrease fleet by 3 vehicles, divert 2500 tonnes food waste	Maintain vehicle fleet, divert 4000 tonnes food waste	Maintain vehicle fleet, divert 2500 tonnes food waste	Increase vehicle fleet by 2 vehicles, divert 4000 tonnes food waste, half tonnage processed by anaerobic digestion	No
Mitigate risks in recycling market	No - dry recycling market/outlet uncertain	No - dry recycling market/outlet uncertain	Yes - food waste outlet more certain than dry recycling market	Yes - food waste outlet more certain than dry recycling market	No

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Adopt outcomes of soft-market testing	Yes	Yes	Yes	Yes	No
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*Recycling rates are based on the assumptions that weekly food waste collection result in 37.5% more food waste collected than fortnightly food waste collections (4,000 tonnes for weekly collections, 2,500 tonnes for fortnightly collections). Weekly collections assume approximately 1.7 kg food waste per household per week, while fortnightly collections assume 1.07 kg food waste per household per week.