

Gloucester City Council

Meeting:	Overview & Scrutiny	Date:	30 September 2019
	Cabinet		9 October 2019
Subject:	Waste and Recycling Proposals		
Report Of:	Richard Cook, Cabinet Member for Environment		
Wards Affected:	All		
Key Decision:	Yes	Budget/Policy Framework:	No
Contact Officer:	Meyrick Brentnall		
	Email:	Meyrick.brentnall@Gloucester.gov.uk	Tel: 396829
Appendices:	None		

1.0 Purpose of Report

- 1.1 To seek the approval of Cabinet to a number of investments to improve the recycling and garden waste collection service.

2.0 Recommendations

- 2.1 Cabinet is asked to **RESOLVE** that:

- (i) an investment of £135,000 per annum be approved for the lease of an additional Refuse Collection Vehicle (RCV) and crew for use on the garden waste service to be reviewed in 3 years.
- (ii) a one off capital investment of £25,300 be approved for the upgrade of the existing aluminium/steel baler resulting in forecast income of up to £84,400 per annum due to higher quality recyclates
- (iii) an investment of £90,000 per annum for the rental of a new 'wide hopper' baler for all mixed fibres (paper and cardboard) resulting in a forecast income of up to £180,000 per year due to higher quality recyclates to be reviewed annually
- (iv) a one off investment of £25,000 for a communications campaign from November 2019 to market the benefits of recycling and the garden waste service our residents
- (v) the proposals around a glass screen contained in para 3.13 – 3.15 are noted, and that if after further monitoring the situation there is a clear business case for implementation then the power to purchase the necessary equipment is delegated to the Head of Place.
- (vi) A one-off investment of £38,000 to pigeon proof the recycling shed for the purpose of Health and Safety, quality of recycled material and longevity of operational equipment/building.

3.0 Background and Key Issues

- 3.1 Waste collection and recycling is a dynamic service with markets and demand for services changing frequently. It is also an area of intense technological change with new equipment and techniques frequently coming on stream.
- 3.2 The last significant change to the recycling service was in January 2017 when a fleet of Romaquip vehicles were purchased and an intensive kerbside collect service was introduced. At the same time a baler and eddy current separator were introduced at the Eastern Avenue depot allowing further sorting of recycled materials. As recipients of recyclate are increasingly demanding higher quality this equipment is fundamental to the financial sustainability of the service.
- 3.3 We are at a point where new technology coming on to the market and the need for high quality uncontaminated recyclate means there is a sound business case for further investment in new equipment and plant. This report details a number of the higher value projects that could be taken forward.

Garden waste

- 3.4 The Garden Waste collection service was introduced in 2005 initially as a free service funded by a grant from Defra, but since 2011 it has been a paid for service. Residents are given a 240-litre wheeled bin and are invited to use it for their garden waste. The waste is collected in a standard Refuse Collection Vehicle (RCV) by our contractor Amey who take it to Hempsted where it is composted and used as soil conditioner.
- 3.5 If the service did not exist a large amount of garden waste would find its way into residual waste and negatively impact upon our residual waste figures. Garden waste in landfill gives off methane a significant greenhouse gas. Alternatively, if incinerated it would impair the efficiency of the combustion process as it is mostly water, it would reduce heat and energy output of the plant.
- 3.6 When the paid for service was first introduced there were around 13,000 customers which increased over time to a peak of 20,000 households in 2016. Following an increase in prices in 2017 and 2018 the numbers declined slightly, however, these have since recovered.
- 3.7 The Council had an understanding with Amey that the number of sign ups exceeded 20,000 then the service would need to be extended with the commissioning of an extra vehicle and crew. We have now reached 20,021 households (July 19) and the service is at capacity with crews struggling to complete their rounds and the number of complaints about the service reflect this.
- 3.8 This is a paid for discretionary service and at the current level of £44 per household the service does not operate at a loss. A new RCV and crew would cost around £135,000 per annum and maintaining the charge at £44 per household would require an additional 3000 properties to sign up for the new vehicle and crew to pay for itself.
- 3.9 Gloucester is currently growing at approximately 550 dwellings per year (and has been for the past 10 years) and with the current Garden Waste take up rate of about 40% there should be a gradual increase in customers irrespective of how successfully it is marketed. It should not be forgotten that there are wider environmental benefits of the service and residents do value its convenience. There are some additional benefits concerning resilience of the overall service (if an RCV breaks down then we have one potentially to cover) and the garden service is also suspended at Christmas allowing Amey to direct all resources to household collection at a very difficult time of year.

Baler

- 3.10 The existing baler is currently not at full capacity due to health and safety concerns, as such we are unable to bale aluminium and steel and this has led to a significant reduction in income. To upgrade the baler so that we are confident that the problems will not re-occur will cost £25,300, however, the benefits are significant as we will be able to bale aluminium and steel with an increased value over existing of £84,000 pa and thus pay back the investment in a few months.
- 3.11 As well as ensuring the existing baler is fit for purpose by upgrading it there is also an additional option of a new, more powerful, 'wide hopper' baler allowing Amey to bale all mixed fibres (paper and cardboard). Currently we collect card and paper separately and that does cause confusion with residents, with the resultant cross contamination leading to a depressed value. If we can bale the material mixed we have an off taker ready to take it and pay £50 per tonne. More than 4000 tonnes of this material a year is collected at the kerbside and there is an opportunity to increase income from this material by £180,000 a year. This type of baler costs £300,000 to purchase but would give a simple pay back within 2 years. Alternatively there is an opportunity to hire the equipment for £7,500 a month or £90,000 a year. Renting the equipment has the benefit of de-risking the task as if for example the market changes again, we can return the equipment (subject to lease agreement terms). There is also less risk in terms of failure and maintenance. This option would give us additional revenue of £90,000 per year. There are other benefits too, having two balers would add resilience to the service and baled materials are easier to store. The storage buildings at Eastern Avenue were built when the volumes of recycling being handled on a daily basis were much lower than now. Baling all materials collected would allow us to use the space available in a better way, reducing the litter which is windblown in the yard. Given the volatility of this particular waste stream it is recommended we opt to rent the necessary equipment.

Communications plan

- 3.12 As with any other business operation, marketing is key to ensuring that customers are engaged with the service. Recycling is no different and as such it is important we continue to market the benefits of recycling to our residents and wider community. Since China stopped taking recyclate for re-processing there has been a number of negative press reports about where recycling goes, resulting in some people questioning why they are bothering. Also, if we are going to adopt some of the above recommendations then residents will be asked to present waste slightly differently, as such it is considered an opportune time to send out an information leaflet combined with Christmas collection information. It is therefore proposed that a marketing campaign is launched in November, to advise residents that there are changes to the way they need to present their recycling, reminding them of the environmental benefits of recycling, the advantages of signing up to the Green waste service and include a calendar of collections for the following 12 months. This at its core would focus on a leaflet posted to every household in the City. We expect this to cost in the region of £25,000 with the majority of that cost being for postage to 56,000 households. The financial benefits of this are very difficult to predict but if nothing else there is a real need to increase recycling rates to meet quite ambitious Government targets to recycle 55 % of all waste produced by 2025, 60% by 2030 and 65% by 2035. Any increase in uptake of Garden waste will help offset the cost of the new vehicle and crew.

Glass Screen on sort line

- 3.13 Glass is a frequent contaminant on the sort line. Although two operatives pull out the large items, it is the small pieces, such as nail varnishes and air fresheners that cause the problem. Glass damages the belt and causes significant down time. Since March this year there have been 3 incidences where glass has caused the machinery to be out of action for a significant period costing £13,500 in transport costs and gate fees and an estimated further £10,000 in lost revenue from sales.
- 3.14 The other problem with glass is that it is considered the worst contaminator by processors. Small fragments of glass recently discovered inside bales of plastic lead to them being returned to us and the end result was disposal to landfill/incineration. This has an impact on our off takers and they lose confidence in our product and inevitably reduce the price they pay us.
- 3.15 It is possible to improve the efficiency of our processing equipment with the addition of a glass screen at the front end. This innovation would remove all small fragments of glass and allow the quality of our aluminium, steel, HDPE and mixed plastic to be significantly improved. An indicative price for this equipment is £160,000 but it can be argued that this piece of equipment will prolong the life of both the sorting line and balers significantly. There is also the potential to be able to sort small amounts of commingled recycling for periods such as Christmas catch up, further reducing operational costs. Savings are difficult to predict as all we have to go on is past performance of the plant. Given the large nature of the investment it is proposed that the situation is further monitored and if a clear business case can be made then the head of place makes a decision to invest under delegated authority.

Pigeon Proofing of Recycling Shed

- 3.16 The recycling shed is an open fronted building that if built today would be enclosed. There are many problems associated with this, but one is the issue of roosting pigeons and the quite significant droppings they leave. This is unpleasant for the operatives, damages the fabric of the building and results in the occasional breakdown of operational machinery resulting in delays and added costs. The Environment Agency who issue the waste management licence to Amey have also started to raise concerns. Enclosing the whole building while preferable would be very expensive. As such we asked a contractor to quote to proof the inside of the building against roosting birds. This has come in £38,000. This does include initial cleaning which Amey have offered to carry out so costs should come down, also when out to tender it may come in cheaper so this should be seen as a maximum to complete the work.

4.0 Asset Based Community Development (ABCD) Considerations

- 4.1 The recycling service at its heart requires residents to engage and recycle and is therefore a good example of ABCD in action. The proposals within the report should enable residents to do more and in a simpler manner thus increasing their participation in the scheme. The recycling team are champions of ABCD and have successfully increased recycling across the city by regular engagement with "recycling champions".

5.0 Environmental Implications

- 5.1 There are clear environmental benefits to a well-resourced and efficient recycling/garden waste service. Recycling ensures resources are not depleted and that Carbon dioxide and other greenhouse gas emissions are reduced. Ensuring that

plastics and other similar materials are kept out of the environment and re-used in some way is increasingly seen as important.

6.0 Alternative Options Considered

- 6.1 With regard to Garden waste we could suppress demand by raising prices and thus negate the need for a further vehicle and crew. This does present a reputational risk in that it is likely that substantial price increases would lead to public criticism. Generally, we could do nothing which would mean income would be lost and the service would deteriorate with resulting increase in complaints. There are also financial benefits to what is proposed that would not be realised.

7.0 Reasons for Recommendations

- 7.1 There are a number of improvements that are proposed for the Garden waste and recycling service. The former service is considered at capacity and a decision will need to be made whether or not to expand the service or limit uptake by refusing new applicants or increasing the cost. The report suggests that for a variety of environmental, operational and long-term financial reasons an extra vehicle and crew are procured in order to accommodate the expansion of the service.

With regard to other capital improvements a clear business case has been put forward that will lead to increased revenue. They also have the advantage of making recycling simpler, ensuring markets are found for recyclates and improving the credibility of the service in the eyes of the public.

Finally, the communications plan will increase awareness and it is hoped increase engagement and therefore recycling rates. Apart from the environmental benefits there are financial ones to the authority in terms of increased recycle value and costs associated with residual waste

8.0 Future Work and Conclusions

- 8.1 This is a global fast-changing market both for recyclates and the technology to deal with them. All the above will need to be appraised to ensure they are delivering the predicted income/savings and the whole operation needs to be evaluated regularly to take advantage of new processes and markets.

9.0 Financial Implications

- 9.1 The additional Green waste vehicle and crew will cost £135,000 pa. Growing membership of the service by 3000 households would cover the additional cost and it is expected that this will happen naturally with growth in the city over a period of time and a predicted steady rise in take up of the service. We are hopeful it will break even in simple terms after 5 years.
- 9.2 The current baler upgraded to comply with BAMA and BSEN60079 regulations, which would mitigate the health and safety issues has been costed at £25,300. This includes replacement of the baler for the two weeks needed to carry out the work, all transport costs and commissioning. Based on present prices, the estimated increase in sales value of baled steel and aluminium is £84,0000 per annum.
- 9.3 The new baler at a rental cost of £90,000 a year should yield £180,000 additional revenue pa, and thus be £7,500 a month in the black from the outset of the operation.
- 9.4 The glass screen at £160,000 would be a significant investment but will reduce the downtime of our sorting equipment, reduce the need to bulk out materials at cost and prolong the life of both the sort line and balers. The ability to be able to sort commingled recycling during periods of “catch up” is another advantage. Further monitoring is required before an investment of this magnitude is recommended.

- 9.5 The communications plan is hard to predict but the £25k spend will not only increase recycling, reduce residual but ensure that the Green waste service is marketed, and Christmas/new year collection schedules communicated in a manner that we know customers prefer and has the greatest success rate.

10.0 Legal Implications

- 10.1 Any purchases of equipment per recommendations 2.1(i) – (iii) and (vi), and any purchase resulting from a decision to buy a glass screen, will need to be in accordance with the Council's own contract procedure rules (see part 4 of the Council's Constitution). In particular recommendations 2.1(i) and (iii) will result in expenditure in excess of the European Union mandated current goods and services threshold and will require a full procurement exercise under the provisions of the Public Contracts Regulations 2015 or a permitted alternative procedure such as purchasing via a framework agreement. At present this requirement remains unaffected by the prospect of the United Kingdom leaving the European Union on 31st October 2019.
- 10.2 With regard to paragraph 6.1, charging is governed by the provisions of the Controlled Waste (England and Wales) Regulations 2012 which, in conjunction with section 45(3) of the Environmental Protection Act 1990, allow the Council to make "a reasonable charge" for the collection of waste. The term "reasonable" in this context has no formal definition but is generally held to mean sufficient to allow a local authority to cover the cost of providing the collection service. This acts as a limitation on how much the annual charge can be increased, even if it is thought desirable to impose a substantial rise.
- 10.4 Regulation 12 of the The Waste (England and Wales) Regulations 2011 requires the Council to "take all such measures available to it as are reasonable in the circumstances to apply the following waste hierarchy as a priority order—
- (a) prevention;
 - (b) preparing for re-use;
 - (c) recycling;
 - (d) other recovery (for example energy recovery);
 - (e) disposal.

Measures which increase the quantity of waste being recycled will assist the Council demonstrating increased compliance with Regulation 12. The Council will be able to demonstrate that less waste is falling into the less desirable categories of (d) and (e).

11.0 Risk & Opportunity Management Implications

- 11.1 Recycling markets change constantly and over the last 12-18 months prices have been affected by China no longer accepting low quality recycling from the western world. It is clear that quality material is the key factor in finding stable end markets

and keeping income levels up. There is an opportunity to enter into 12 month contracts for baled mixed paper, plastic, aluminium and steel. This will secure a set price and remove the risk that may exist from market forces.

12.0 People Impact Assessment (PIA) and Safeguarding:

12.1 The PIA Screening Stage was completed and did not identify any potential or actual negative impact; therefore, a full PIA was not required.

13.0 Community Safety Implications

13.1 There are no predicted impacts upon community safety.

14.0 Staffing & Trade Union Implications

14.1 None

Background Documents: None