South Cambridgeshire District Council

REPORT TO:	Cabinet	14 September 2017
LEAD OFFICER:	Director, Health & Environmental Services	

Shared Waste Service – SCDC Recycling Options

Purpose

1. To present Cabinet with options for the kerbside collection of recycling material for the next 7 years and in particular, propose a change to comingled collection and the end of separate paper collection across South Cambridgeshire.

2. This is a key decision because it could be significant in terms of its effect on all communities in SCDC and could have a significant effect on the Council's budget for the Single Shared Waste Service (SSWS).

Recommendations

3. It is recommended that Cabinet:

   a) Agrees to the implementation of Option 2: a change to a co-mingled service for the collection of all SCDC kerbside recycling material to replace the current two stream (paper out) collection service, at the earliest practical opportunity within the current financial year.
   b) Delegates authority to implement the new service, including any resulting staffing changes, to the Director Health & Environmental Services in consultation with the Environmental Services Portfolio Holder

Reasons for Recommendations

4. The co-mingled recycling service, Option 2, represents the most cost effective option for the kerbside collection of dry recyclable materials over the next 7 years while maintaining current high recycling and landfill diversion rates. From a resident perspective, collection from a single bin is easier to use and requires no day changes. From an operational perspective, it reduces health & safety risks to staff and provides greater operational flexibility and resilience across the shared service (of particular importance in an area of high growth such as SCDC); and provides environmental benefits, including reduced mileage (c.26, 000 p.a.), reduction in the number of HGV movements and reduced vehicle emissions, while still ensuring paper is recycled.

5. Option 2 also returns all SCDC residents to uniformed paper collection, which was temporarily varied for approximately 10,000 residents in February 2017 as a short term measure pending this decision.

Background

6. The SSWS provides an alternate weekly domestic waste and recycling service to over 63,000 SCDC households. In terms of recycling, mixed dry recycling and separate paper is collected in a blue bin with insert caddy for paper. The mixed recycling is processed through a Materials Reclamation Facility (MRF) at Waterbeach and the separate collected paper sold to a paper mill.

7. A number of recycling vehicles are now due for replacement and as the specification of the vehicles will be determined by the materials they are transporting, the shape of the collection service will effectively be fixed for the lifetime of the vehicles i.e. the next 7 years.

8. In February 2017 remodelled recycling rounds were introduced in SCDC to balance out the effects of continued growth, which required an additional recycling vehicle. However, as the decision on the future shape of the recycling service was still being investigated and in order to avoid purchasing a type of vehicle that subsequently could not be used, a temporary 'work around' was introduced which switched 10,000 properties in SCDC from a separate paper collection to a co-mingled recycling service in which all dry recycling is placed in a single blue bin.

9. Modelling work has been undertaken to evaluate the costs and benefits of the different options for dry recycling collections, drawing on external review and our own experience in operating a major domestic recycling service, the results of which are now presented in this report.

Considerations

10. The national Waste & Resources Action Programme (WRAP) and Ricardo Environmental were commissioned to assess a number of different service options for our shared waste and recycling services to improve kerbside recycling levels, and compare their comparative costs and performance. The approach compares the options by calculating likely performance, resource levels and comparative costs against the current service using our actual data from current collection rounds, WRAP benchmarking data and agreed operational and financial assumptions. The tool used is not a budget tool – it is a cost comparison tool.

11. The wide range of initial options included recycling co-mingled, two stream (with paper collected separately), multistream (separate materials, multiple containers), separate food waste and garden waste. Sensitivity modelling was also carried out on separate paper collections relating to paper price/tonne and tonnage.

    The initial modelling outcome concluded that the current service was already a high performing service and that separate food waste collection would significantly increase relative costs, with limited impact on recycling performance. The most cost effective options in terms of cost and recycling performance involved co-mingled and two stream (paper out). The least cost effective were likely to be multistream collections.

    Note the initial modelling represented a snapshot in time and did not take account of the rate or location of future growth.

12. For the 'paper out' service to operate across SCDC and Cambridge, the modelling looked at changes to paper price, paper tonnage and service accessibility within Cambridge City.

13. The modelling work effectively filtered many options down to a few which were likely to be viable in terms of outcomes, operational viability and financial implications. After informal discussion with Lead Members at Shared Waste Board, the potential for collecting paper-out across the whole area was discounted, with no expected increase in recycling rate, significant start-up costs for introducing this in the City, a phased introduction to account for vehicle types, and limited ability to operationalise it in flats and some narrow City streets being inaccessible to split body vehicles. It was felt reaching operational agreement to collect side waste, and increasing information to residents on recycling opportunities, may reap more reward in terms of recycling rates.

14. The two preferred options remaining were:
    - Option 1 – co-mingled in City, paper-out in SCDC;
    - Option 2 – co-mingled collections everywhere.

    As the initial modelling was a broad comparative cost tool further, more detailed cost assessment was conducted on the two preferred options.

15. The main determinant of the cost of options is the number of vehicles (requiring capital investment, maintenance and operational costs, and staffing costs); the determinant of the number of vehicles is the number of rounds. These were then modelled based on data from the current service and including set criteria such as maintaining current collection days, working day duration, vehicle speed, variation in vehicle types, and allowances for growth.

16. In addition an assessment of the wider impacts and opportunities of the options (largely qualitative analysis) was undertaken in-house by the SSWS and Finance using our accounts, knowledge of operational and policy constraints and opportunities, and evidence from residents' surveys. Our findings and reasoning were then discussed with an industry expert to quality assure our process of assessment and challenge our assumptions.

17. Aspects considered by SSWS and listed in Table 1 Appendix A included:

    - Resident acceptability – ease of use
    - Operational impact (flexibility and resilience of a single fleet, use of boxes/caddies)
    - Legislative resilience
    - Financial implications
    - Contractual impact
    - Environmental impact (maintaining current recycling rates, CO2, waste hierarchy)
    - Health & Safety considerations (relating to lifting and handling)
    - Materials quality
    - Resilience and capacity (planning for growth).

Financial Assessment

18. Table 2 below provides a financial comparison of the annualised costs of the two preferred options. It is not a representation of predicted budgeted costs but a comparison of indicative additional costs when compared with the current 'temporary' service if the chosen Option was implemented from April 2018.

TABLE 2: Recycling Options – Additional Cost Comparison (£K)			
	Current (temporary) service	Option 1: SCDC Paper Out	Option 2: SCDC Co-mingled
Service costs including:- • Vehicle costs • Staffing • Fuel • Container provision • MRF Costs • Paper Income	1780	2109	1762
Additional Spend over 2017-18 costs	–	329	(18)

19. As can be seen, an additional £329,000 would be required to revert back to an SCDC paper out service Option 1 from the current temporary arrangements, reintegrating the 10,000 SCDC properties switched to co-mingled in February 2017. Introducing Option 2 would result in an indicated reduction of £18,000

20. Table 3, attached as Appendix B, provides a 7 year revenue and capital estimate i.e. the cumulative additional costs over the life of new vehicles. It also gives an indication as to the level of growth that can be accommodated within each option and when additional vehicles will be required.

21. As can be seen, if the current 'temporary' service was to continue an additional vehicle would be required in 2018/19 to take account of growth within the service.

22. Option 1 – Paper Out would result in a total additional £2,340k revenue expenditure over the 7 year period compared with the current 'Temporary' service. This is mainly due to this option requiring more permanent staff and vehicles.

23. Option 2 Co-mingled would result in a total saving £670k revenue expenditure over the 7 year period again when compared with the current 'temporary' service. This is mainly due vehicle and staffing numbers and increase operational efficiencies in terms to vehicle capacity and mileage costs.

Implications:

24. The following implications have been taken into account in the recommendation to implement Option 2:

Staffing

a) Implementation of Option 2 would result in the loss of one crew (1 x driver, 2 x loaders) and one vehicle. It is anticipated that, given current vacancy rate within the service the crew will be redeployed within the service.

Financial

b) As outlined in the paragraphs 19 – 24 of this report.

Risk Management:

c) **Resident satisfaction** – a dedicated communications plan will keep residents fully informed as to what is happening and the reasons why. Experience from the current “temporary” co-mingled service across 10,000 homes in South Cambridgeshire has shown high resident participation and acceptance. The options were also discussed informally at the Cabinet –Parish Council Liaison Meeting in July 2017. It was emphasised at this meeting that current high performing recycling rates and landfill diversion rates will be maintained with a move to co-mingled service, so continuing to support residents’ environmental efforts. We would continue to work with residents requiring additional capacity for recycling.

d) **Project implementation** – In keeping with previous successful major service changes the implementation will be managed in accordance with Prince 2 methodology.

e) **Collection days –** there will be no necessity to change collection days as a result of moving to Option 2.

f) **Consultation** - with staff and unions will be an integral part of the implementation phase.

g) **Health & Safety** – national guidance means that the current paper caddy system will need to be changed to reduce health & safety risks to crews arising from manual handling and lifting caddies weighing up to 40kg in some instances. Moving to comingled service removes the need for a paper caddy and so removes this health & safety risk and the need for other service changes.

h) **Financial** – sensitivity analysis has been undertaken to assess the impact on the business case of increases and decreases in current recycled paper prices, based on intelligence from suppliers. The analysis demonstrates that even a major positive or negative variation to paper prices will have limited effect to the difference between the two options.

Legal:

i) There is a legislative requirement that if any changes to collection regime are fundamental, that the current TEEP (technically, environmentally, economically practicable) assessment is reviewed. Work is progressing to complete a new TEEP assessment for the single service. Option 2 is considered compliant at this time.

Climate Change:

j) See Environmental impact in Appendix A: Table 1 Comparisons of Options.

Effect on Strategic Aims

Aim 1 – An Innovative and Dynamic Organisation – adopting a more commercial and business-like approach to ensure we can continue to deliver the best possible services at the lowest possible cost

a) Implementation of the recommendations in this report will make a significant positive contribution to the council’s Strategic Aim 1.

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Appendix A:

TABLE 1 – Comparison of Options		
Aspect considered	**Co-mingle all recycling**	**Full Paper-out SCDC**
Resident acceptability	+ Feedback from informal discussion with Parishes and individuals has been neutral. + Simplification is often supported by residents, and is easier to communicate.	+ Feedback from informal discussion with Parishes and individuals has been neutral. - Of those residents (that completed the survey) who expressed dissatisfaction with the waste service, issues with the paper caddy were the second most cited reason (13% raised this). -Typically 3250 caddies are lost or damaged each year generating calls to customer services.
Resident participation	+Easy to use and familiar system (blue bin). +Easy to understand. +Easy to communicate Would need an initial communication 'push' and then ongoing communications activities are business as usual. +Aligns with all other RECAP partners' collection regimes.	+ This service format has been in place since 2010. - Quantity of paper collected is declining but this may be a reflection of decreased paper use rather than lack of uptake by residents. - Need for residents to request replacement caddies can act as a barrier to participation. - Requires more understanding and involvement from resident and requires additional explanation. Needs a communications 'push' to increase rates and decrease contamination, and then ongoing communications activities as part of business as usual.
Operational impact (staff)	+ Fewer permanent staff (however due to current vacancies is this will not lead to any staff redundancies). +Co-mingling will simplify the collection process for crew members, especially those who work across the service streams. +Co-mingling will increase productivity of the service due to increasing number of households collected per vehicles per day.	- This option requires more permanent staff (3 x drivers and 6 x loaders) compared to co-mingled option. - Service is currently having difficulties recruiting correctly qualified staff or agency cover. See also H&S considerations.
Operational impact (rounds and vehicles)	+ Fewer vehicles required for recycling collections. (11 vehicles needed in total)	- More vehicles required (18 vehicles needed in total) - Dedicated spare the split bodied

	+ Spare vehicles shared across all waste streams. + For all new 26 tonne vehicles, narrower track option can be specified (with no loss of capacity) which will make them suitable for use everywhere – providing increased operational flexibility. + Co-mingled vehicles have larger capacity will enable larger rounds to be completed without revisiting the tip as often; reduced mileage, fuel costs and CO_2. +Ready availability of standard collection vehicles to hire should operational problems arise. - Some residents may ask for an additional blue bin to take the paper and this will represent extra 'lifts' for crews.	vehicle that cannot be shared across full service. - Less operational flexibility as split-bodied vehicles will be required as part of the standard fleet. - Smaller capacity vehicles will increase number of visits to the tip; increased fuel costs and CO2. -Limited ability to hire split body vehicles should operational problems arise.
Operational impact (other)	+ Eliminates dealing with 3,250 caddy issues per year. Reduced calls and handling by service centres and business support staff as a result. + Simpler contract management for disposal and reporting. + Can be operationalised quickly.	See H&S considerations.
Resilience and capacity	+Vehicles can be used across waste streams and fewer spares and repair issues with fewer vehicle options. + Creates greater operational flexibility across the service in an area of high growth - In addition to the 11 vehicles required for a fully co-mingled service, it is estimated that 1 extra vehicle will be required in 2020/1. This is based on forecast completions of approximately 18,500 properties.	- In addition to the 18 vehicles that are required to return to a 100% paper caddy service, It is estimated that at least 2 other vehicles will be required in 2020/21 to accommodate growth. This will be dependent on the location of the growth.
Contractual impact	- The paper sales contract with Palm Paper would continue on the basis of suppling paper from NW Cambridge development and bring banks. If this is not supported then recycling could be processed via the MRF.	+ A one year extension to the paper sales contract with Palm Paper has been negotiated as planned; this now runs to October 2018. - A new paper sales contract would be required in 2018, terms of

	- A discuss would be required with Amey regarding the change of material composition of the recyclate supplied to the MRF.	which may not remain as good as current contract terms.
H&S considerations	+ All collections are handled in a consistent way in bins or side waste; manual handling risks minimised.	- Continued use of paper caddies is being evaluated as sampling has shown excessive weights being presented. This this is the subject of an ongoing H&S assessment.
Modelled diversion from landfill (from Ricardo assessment)	53.8%	53.5%
Environmental impact	+ Fewer vehicles required (embodied carbon; lifecycle of materials). + 26,000 fewer miles driven per year due to more efficiency routing and less journey's to and from the tip due to larger capacity vehicles.	- Additional vehicle required (embodied carbon; lifecycle of materials). - 26,000 additional miles to be driven compared to a co-mingled service.
Materials quality	- Co-mingling of recycling may to lead to reduced quality of recyclates, however close working with residents and MRF should be able to ensure material quality. - Paper will be separated out and will be recycled via sorting, it may be of a different quality grade and its end use may provider a lower environmentally benefit.	+The good quality paper supply will be retained.

Appendix B: TABLE 3 – 7 Year outlook (£k)

Current 'Temporary' service									**Grand total (£k)**	
year	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**			Addn
Annual	1,780	1,921	1,914	2,053	2,047	2,040	2,033		13,788	
Capital	160	182		160						
Option 1: Paper - Out									**Grand total (£k)**	
Year	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**			
Annual	2,109	2,102	2,396	2,390	2,384	2,377	2,370		16,128	2,340
Capital			342							
Note: the timing and need for one or both vehicles is dependent on actual growth rates and location										
Option 2 : Comingled									**Grand total (£k)**	
Year	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**			
Annual	1,762	1,765	1,913	1,916	1,918	1,921	1,923		13,118	(670)
Capital			160							

Assumptions

- All costs represented in the above table are total net costs. As such, the income received from paper collected separately (option 1) has been included within the figures.
- Service costs included:-
    - Vehicle costs including fuel
    - Staffing
    - Container provision
    - MRF Costs
    - Paper Income

- The assumptions surrounding the volume and price of paper collected (in Option 1) have been based on current levels i.e. 3,200t annually at a price of £112 p/t.
- Property growth across both SCDC and CCC based on the number of estimated completions derived from respective Planning departments.
- In addition to the costs of growth on the service, an estimate has also been made as to the level of expected income to be generated from this growth has been factored in to option 1 based on the current price per tonne being received.

Growth Projection used within model

Year	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Growth Projections – whole service	2,877	2,446	2,346	2,043	2,329	2,022	1,723
Growth Projections - SCDC	1,403	1,425	1,302	1,270	1,480	1,330	1,290
Mid-Point	702	712	651	635	740	665	645
Cumulative (assumed mid-point)	702	2,115	3,479	4,765	6,140	7,545	8,855