HAMPSHIRE COUNTY COUNCIL

Decision Report

Decision Maker:	Executive Member for Economy, Transport and Environment
Date:	2 July 2020
Title:	Recycling and Single Materials Recovery Facility (MRF) Update
Report From:	Director of Economy, Transport and Environment

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Purpose of this Report

1. The purpose of this report is to provide an update on the business case for a single co-mingled Materials Recycling Facility (sMRF), to outline the current national and local context, and also the work undertaken to date to support identifying the most suitable recycling collection and processing system for Hampshire in line with the requirements of the Environment Bill 2020.

Recommendations

- 2. That the Executive Member for Economy, Transport and Environment approves that, in the current circumstances, and based on the modelling to date, work on the single co-mingled Materials Recovery Facility proposal is paused whilst business cases for the alternative options of a Twin Stream and Kerbside sort systems are developed and that the Council looks to explore the potential for delivering Food Waste reception and processing infrastructure in conjunction with these other recycling infrastructure business cases.
- 3. That the Executive Member for Economy, Transport and Environment notes and approves further work and discussion with Project Integra Partners regarding future waste services arrangements in terms of collection and processing of recyclable materials in line with the principles set out in this report, including:
 - no further work to be undertaken regarding a single co-mingled MRF;
 - recycling services to be compatible with the requirements of the Environment Bill 2020;
 - that any solution does not transfer financial risk to the County Council;
 - that there is no impact on the County Council's ability to deliver its required Transformation Savings proposals; and

• that there will need to be robust governance arrangements in place between the authorities that enables effective decision making.

Executive Summary

4. This paper briefly sets out the current and historic context in which Hampshire authorities are operating and the policy proposals from Government in order to increase recycling performance and ensure a more consistent type of Waste service for householders across the country. The paper considers the business case development that has been undertaken with regards to a single co-mingled Materials Recovery Facility (sMRF) and sets out the outcome of this in a separate appendix.

Contextual Information

Historic Context

- 5. Hampshire County Council, as a Waste Disposal Authority (WDA), has a statutory duty for the disposal of municipal waste arisings in Hampshire. In order to fulfil this function, it has, in conjunction with its waste disposal partners, the unitary authorities of Portsmouth City Council and Southampton City Council, entered into a waste disposal service contract, now extended to 2030, and a contract for the management of 26 Household Waste Recycling Centres (HWRCs), also to 2030, both of which have been awarded to Veolia UK.
- 6. Prior to the commencement of the contract, all 14 waste authorities of Hampshire (Disposal and Collection), along with Veolia, became members of the Project Integra (PI) partnership established in the mid-1990s to deliver an integrated waste management service in the county. The partnership agreement is in the form of a non-legally binding Memorandum of Understanding, entered into by all partners and setting out the principles of the partnership and the roles and responsibilities of the partner members.
- 7. The Waste Disposal Service Contract (WDSC) with Veolia is a Design, Build, and Maintain as well as Service contract, which requires the provision of the necessary infrastructure at the outset. The joint working arrangements put in place through the Project Integra partnership enabled the County Council to include recycling infrastructure within the remit of the WDSC, even though recycling activities are, in the main, the responsibility of Waste Collection Authorities (WCAs).
- 8. As a result of this approach, investment was made into a suite of infrastructure, which consists of:
 - 3 Energy Recovery Facilities (ERFs)
 - 2 Material Recovery Facilities (MRFs)
 - 2 Composting Facilities
 - 10 Transfer Stations

- 26 Household Waste Recycling Centres (HWRCs) (including the unitary authorities).
- 9. Household waste related services in Hampshire cost approximately £106million per year, with these costs split approximately one third spent on waste collection and two thirds spent on waste disposal. This includes repaying the capital investment made by Veolia in delivering the aforementioned infrastructure.

Performance

- 10. The recycling performance of Hampshire authorities is not ranked highly in comparison with other authorities nationally. Table 1 shows the most recent (2018/19) recycling performance for all Hampshire district authorities, and their position on the National Waste Collection Authority league table as well as that of the County Council and the two city councils.
- 11. This is in part due to the restricted processing ability of the existing MRF infrastructure, which is currently unable to sort the full range of plastic packaging products.
- 12. Other reasons for the fall in performance include the restricted nature of the Project Integra partnership, which in recent years has tended towards a less ambitious work programme in order to secure consensus, and the removal of the communications budget following austerity driven reductions among the district partners.

Position out of 222 WCAs	Authority	NI192 Percentage HH waste sent for Reuse, Recycling or Composting
126	Hart District Council	41.78%
127	Eastleigh Borough Council	41.68%
N/A	Hampshire County Council	41.32%
164	Winchester City Council	36.13%
167	Test Valley Borough Council	36.00%
175	East Hampshire District Council	34.34%
178	Fareham Borough Council	33.70%
184	New Forest District Council	32.90%
197	Havant Borough Council	30.69%
N/A	Southampton City Council	29.26%
206	Rushmoor Borough Council	28.99%
207	Basingstoke and Deane Borough Council	28.34%
N/A	Portsmouth City Council	25.50%
216	Gosport Borough Council	23.77%

Table 1: National Indicator NI 192: Recycling, Composting and Reuse (%) Performance 2018/19

13. It is recognised that change to existing services is inevitable given the direction of travel being proposed by Government set out below, and the

Hampshire Waste Partnership work set out later in this paper has been initiated in recognition of this. This work is intended to find agreement on future collection arrangements in order to determine the future processing infrastructure requirements.

National Context

- 14. In December 2018, the Government published its Resources and Waste Strategy¹, which is the mechanism by which it will deliver on the ambition of the 25 Year Environment Plan to leave the environment in a better condition for future generations.
- 15. In February 2019, the Government issued four consultations on key elements of the Strategy;
 - consistency of recycling collections;
 - Deposit Return Scheme (DRS) for drinks containers;
 - Extended Producer Responsibility (EPR) for packaging; and
 - plastics packaging tax.
- 16. The County Council responded positively to these consultations, supporting the key themes of each, whilst making specific comment on the impact that some of the proposals could have on local authorities: in particular, the cost and timeframes associated with implementing such significant change when local authorities are coming from such different starting points, both in terms of performance and operation.
- 17. In January 2020 the Environment Bill was re-introduced to parliament, having previously fallen at second reading due to the 2019 General Election. The Bill sets out the legislative framework that will enable Government to establish post-Brexit governance arrangements for environmental matters and implement its Resources and Waste Strategy. This provides a clear direction of travel for the government, and a clearer indication of the key implications for the waste and resource management sector going forward, as follows:
 - introduction of consistency for collections of waste from households e.g. material streams including a wider range of plastic packaging and weekly separate food waste collections as well as some specific requirements to separate some materials from others to maintain quality;
 - powers to introduce a deposit return scheme for drinks containers, indicated by Government although the scope and scale of the scheme is yet to be determined;
 - powers to make producers 100% responsible for the packaging waste that they produce to reflect the costs incurred in managing the material they create; and

¹ <u>Resources and Waste Strategy - December 2018</u>

- charges for other single use plastics, akin to the plastic bag charge to encourage the use of alternative products/design to either remove the need for the item or to ensure it is easily recyclable.
- Progress of the Environment Bill through Parliament has stalled as a consequence of the Coronavirus crisis with the Bill still with the Public Bill Committee for scrutiny.
- 19. Likewise, whilst DEFRA has already commenced with a round of Stakeholder engagement to help flesh out the details for the Government's proposals on issues such as Collection Consistency, this work too has been interrupted by the Coronavirus outbreak. It is understood that DEFRA is currently trying to re-initiate this engagement, but it is now likely that next round of consultations on these proposals will not occur until 2021.

Single Co-mingled Materials Recycling Facility Business Case

- 20. In recognition of the desire among National and Local Politicians as well as residents to improve Hampshire's recycling performance, the County Council has been working with Veolia, its waste disposal contractor, on options to upgrade and redevelop the existing MRFs at Portsmouth and Alton to be able to accept and sort additional waste streams.
- 21. The physical constraints of the Portsmouth site mean that it would not be possible to provide the capability at this site, and the MRF at Alton is not big enough to be able to take all of the recyclables from across the County, particularly when additional housing and increasing recycling targets are taken into account.
- 22. In order to try to maintain the existing co-mingled collection service operated by waste collection partners, the County Council undertook a review of options for a co-mingled single MRF to replace the existing facilities.
- 23. Initial modelling included the addition of plastic packaging such as pots, tubs and trays (PTTs) and glass, which lead to a requirement for a 175,000 tonne per year facility. Due to the inclusion of glass within this option, the business case modelling led to significant additional costs for the County Council as a consequence of having to pay a gate fee for this material, which currently only incurs a nominal handling fee as the material is delivered separately from other materials for storage and onwards transfer to market.
- 24. The markets for recyclable materials have long held a dislike for the cocollection of glass and fibre materials (paper & card). This is due to the contaminating effect that glass has on the fibre remanufacturing process, especially paper.
- 25. The recently re-published Environment Bill requires the separate collection of material streams in order to preserve the quality of the fibre products, unless it is not technically or economically practicable to do so, or where there is no significant environmental benefit from doing so.
- 26. The inclusion of glass as part of co-mingled kerbside recyclable collections, whilst economically advantageous to the WCAs, due to the need not to provide separate collections for the material, would significantly increase the

County Council's costs as glass would now incur a gate fee for processing through the MRF, which would be at least 10 times greater than the current bulking costs. It would also not be environmentally beneficial in terms of material quality, and its marketability as MRF glass is of poorer quality, which makes it less suitable for re-melt into new bottles and attracts a lower value from markets.

- 27. In the report presented to the Executive Member for Environment and Transport in April 2019², the County Council set out the rationale for the exclusion of glass from the material input specification, and subsequently commissioned Veolia to undertake a feasibility study into the development of a new single co-mingled MRF that would be capable of processing all of the materials currently included in the current specification, with the addition of PTTs and cartons.
- 28. The County Council has invested in a site at Chickenhall Lane in Eastleigh, which has planning permission for waste activity (Thermal Treatment [Gasification] and Anaerobic Digestion) in order to be able to provide new recycling processing infrastructure in light of the long-term unsuitability of the existing facilities.
- 29. At the County Council's request, Veolia submitted a detailed design proposal for the development of a single 125,000 tonne per annum MRF to process fully comingled dry mixed recyclables (excluding glass) at the Chickenhall Lane site in Eastleigh.

30. The capital costs of the development are set out in table 2 below;
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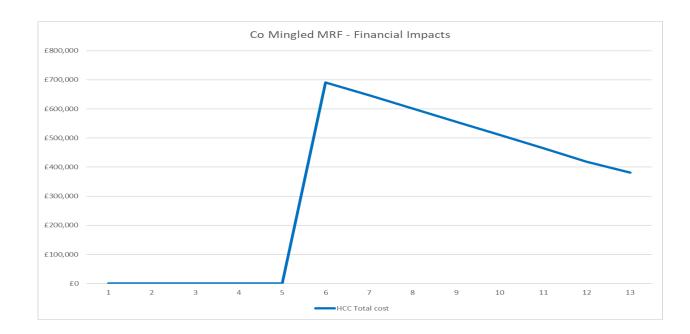
Item	Capex – 125ktpa Comingled MRF
Process	£ 16,733,073
Buildings	£ 11,068,487
Others	£ 6,348,302
Total	£ 34,149,861

Table 2

31. The County Council would borrow the required capital from the Public Works Loan Board (PWLB) at the interest rate at that time. It is expected that the MRF building and associated infrastructure would be depreciated over a 30year period. However, the processing infrastructure inside the MRF would be depreciated over a 10-year period, the operational life of the equipment. This is due to the wear and tear on the machinery; the need to upgrade component parts to improve quality and performance of the sorting, and to respond to market and legislative changes.

² http://democracy.hants.gov.uk/documents/s32722/Report.pdf

- 32. Cost modelling has been undertaken to capture the financial implications on the proposal including those resulting from projected changes in material flows that would result, and associated factors such as:
 - The cost of capital borrowing. (For the purpose of the modelling this has been assumed to be a rate of 2.5%)
 - Fixed fee discount in recognition of operational efficiencies of moving from a two site to a one site operation.
 - The wider benefits from an expanded range of kerbside recyclables being collected and diverted from the ERFs
 - an increase in the amount of MRF income from the sale of recyclables,
 - an increase in ERF income due to the capacity freed up as a result of the diversion that can be utilised for third party material by Veolia to generate an income.
- 33. This modelling indicates that the single co-mingled MRF option would result in an overall increase in cost to the County Council mainly as a result of the repayments of the capital burrowing (See Graph 1). In the first year a cost increase of £691,203 against the current operational baseline cost is forecast. This increased cost tapers off over the period of borrowing as the capital is paid off.



Graph 1

34. The full impact of this proposal over the remaining term of the contract, to December 2030, is a total cost increase of £4.615 million to Hampshire County Council. This should be considered in the context of the savings targeted from this project, as part of the Transformation to 2019 programme, of £3.019 million per annum.

- 35. It should also be noted that it is not expected that a fully comingled system will comply with the anticipated legislation and would therefore impact negatively on any EPR payments that local authorities might receive.
- 36. On the basis of this information, it is considered that, in the current circumstances, the single co-mingled MRF proposal does not provide a value for money solution for the County Council in terms of the sufficiency of the savings opportunity, and therefore no further work will be undertaken on this option whilst similar business cases for the alternative options of Twin Stream or Kerbside Sort collections (see below) have been developed.
 - twin stream co-mingled residents are provided with two recycling containers and are asked to place different materials in each container, typically paper/card (fibre) in one and plastics, glass and cans (containers) in the other. These materials are kept separate either through collection at different times or by using one vehicle which has two chambers; and
 - kerbside sort involves the sorting of materials at kerbside into different compartments of a specialist collection vehicle.
- 37. This, therefore, means that the delivery of the Transformation to 2019 savings associated with this proposal will be delayed and will now be delivered alongside the Transformation to 2021 proposals that relate to the cessation of discretionary payments to our District Partners.
- 38. As a consequence of the County Council considering the potential relocation of its recyclables processing capacity from Alton to Eastleigh. Veolia, which owns the freehold for the Alton Facility, submitted a planning application to repurpose the site as an Energy Recovery Facility on 25th May 2020.

Hampshire Waste Partnership

- 39. Alongside the business case modelling for a co-mingled sMRF, work on the Hampshire Waste Partnership programme has been continuing. This is driven through the Hampshire and Isle of Wight Local Authority (HIOWLA) Chief Executives group and undertaken by the Directors Working Group (DWG), with representatives from each of the Waste Collection authorities, Unitary authorities, and the County Council invited to participate.
- 40. This work is looking at how partners can adapt to the requirements of the Government policy, with the starting point being the way in which waste is collected. This should set the foundation for the rest of the system. However, in Hampshire the recycling system has been determined by the input specification for the MRFs, which have accepted mixed recyclables (paper material, plastic bottles, and metal cans) collected in a co-mingled manner. This specification was originally agreed in the mid-1990s and has not changed significantly since then due to the limitation of the MRFs' design as well as the lack of viable markets for additional materials. As long as the material is presented in accordance with the specification, the style of

collection has been left to individual authorities to decide. This has resulted in as many different ways of delivering these collections as there are Hampshire Authorities, as shown in (Fig 1).

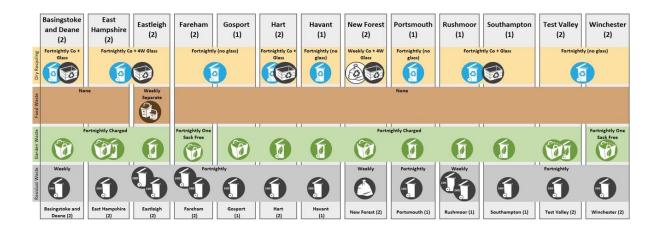


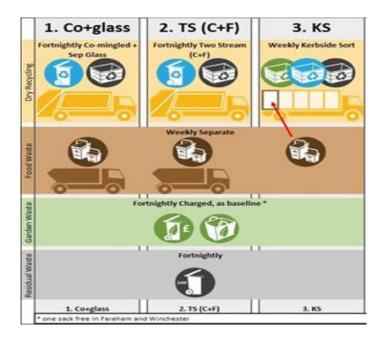
Figure 1: Existing Collection systems in Hampshire³

- 41. The Government's Resources and Waste Strategy seeks the delivery of a much more consistent style of collection in order to reduce public confusion about what can and cannot be recycled. The Environment Bill set out the legislative basis for consistency in household waste collections by prescribing the principles of these collections.
- 42. The Directors' Working Group, supported and funded by the Waste and Resources Action Programme (WRAP), commissioned Eunomia Research and Consulting Ltd to undertake a review of the three different waste collection systems recognised by the Government (Fig 2) namely:
 - co-mingled where all Recyclable materials are collected together;
 - twin stream where fibre products and containers are collected separately; and
 - kerbside sort where all materials are sorted into different streams at the kerbside.

in order to establish what the impact of each of them would be on Hampshire in terms of whole system cost and performance.

³ This diagram was accurate as of September 2019.

Figure 2: Core Collection Options



- 43. The review considered these three recycling collection systems and assumed the following systems were also in place:
 - weekly separate food waste collections;
 - chargeable fortnightly green garden waste; and
 - fortnightly residual waste, using a 240 litre container.
- 44. In addition, these three core systems were each modelled against three further sensitivities (Fig 3), namely:
 - free fortnightly green garden waste;
 - fortnightly 180 litre residual waste container; and
 - three weekly residual waste collections.

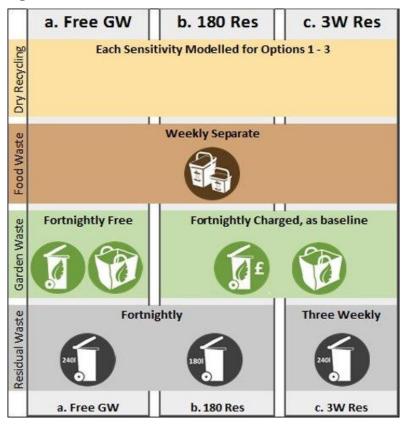
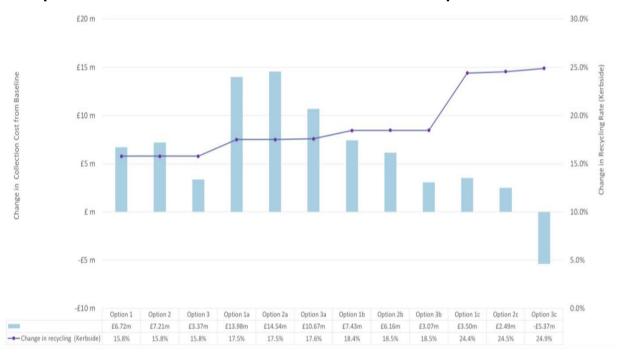


Figure 3: Collection Sensititivities Modelled

- 45. The results of this work, set out in graph 2 below, show that, broadly, the performance for each of the 3 collection methods is similar, in that each of the options (options 1, 2, 3 on Graph 2) shown in figure 2 result in an approximate 15% increase in recycling performance. The majority of this is as a consequence of the assumed introduction of food waste collections, with some minor improvement in the capture rate of dry recyclables.
- 46. The results show that the biggest impact on recycling performance is not derived from the recycling system used, but from the residual waste collection service. It is not until this is targeted either through a small container (options 1b, 2b, 3b in Graph 2) or reducing the frequency of residual waste collections to 3 weekly (option 1c, 2c, 3c in graph 2) that the recycling performance increases significantly, with 3 weekly collections leading to approximately a 25% performance increase because many residents would be compelled to be more diligent in their recycling, both of food waste and dry recyclables, in order to have the capacity for 3 weeks' worth of non-recyclable items in the residual waste container.



Graph 2: Net Cost and Performance of each Collection Option

- 47. Whilst the results also show that the full kerbside sort option is both the cheapest and gives marginally the greatest performance improvement, this modelling does not include any changes to the existing wider waste transfer station (WTS) network that might be required in order to accommodate presegregated materials. Initial work with Veolia on this issue has identifed significant costs at some WTSs, even up to a need to replace at least one facility in its entirety.
- 48. Since this work started, the County Council, along with most other Hampshire authorities, has declared a Climate Emergency. Waste management is a key service provided by these authorities, and as a predominantly logistical exercise contributes significantly to each authority's carbon emissions. In order to fully understand the implications of the waste collection options considered above, Eunomia were also commissioned to assess each collection option for the carbon impact it would have compared to the current system.
- 49. The results (Graph 3) show that all of the options lead to a reduced carbon impact compared with the baseline scenario primarily due to the introduction of separate food waste collections and the impact that this has on residual waste. Again the results show that the broad collection options shown in Fig 2 do not lead to huge variations in CO₂, though the Kerbside sort option does show marginally better performance due to the reduced number of vehicle movements required to undertake the collections, if dry recyclable and food waste collections are carried out using a single vehicle.

50. Again, the main driver to reducing CO₂ emissions from this service is primarily due to the reduction of residual waste capacity leading to the diversion of materials to the various recycling waste streams, with a reduction on residual waste collection frequency to 3 weekly showing the greatest impact.



Graph 3: Carbon Impact (Kilotonnes CO2e per annum) of Collection Options

Next Steps

- 51. The window for new infrastructure delivery, timed to meet the known Government ambition to introduce its Environment Bill measures by 2023, is shrinking. Therefore, the County Council is proposing to progress the business case development for infrastructure related to both a Twin Stream Collection System and Kerbside Sort system in order to determine, in comparison to the work already done for a single co-mingled MRF, which, if any, provides a business case for investment to deliver the savings requirements associated with the Transformation to 2019 and 2021 programmes.
- 52. It is intended to carry out this work over the course of the next few months, despite the current Covid-19 crisis, in order to be in a position to present the findings to partners as soon as feasibly possible.
- 53. WCAs will then be asked to sign up to this proposal and undertake to adapt their collections in order to be able to present material into the infrastructure, including the Delivery Point network, in accordance with a revised and expanded material specification within an agreed timeframe.
- 54. It is recognised that, ultimately, it may not be possible to achieve a consensus amongst all partners. Hampshire County Council would therefore have to consider moving forward with those Authorities which are willing to adapt to

this preferred option, whilst working to review options with those who are unwilling to commit to adopting the preferred option.

55. The County Council will be looking to make a decision regarding its preferred option later in 2020 in order that it may progress with obtaining any necessary planning permissions and order infrastructure to be able to deliver it in time for the introduction of the Government proposals which despite the Covid-19 crisis is still anticipated to be in 2023.

Food Waste

- 56. With the re-publication of the Environment Bill on 30 January 2020, the requirement for mandatory weekly food waste collections takes a step forward.
- 57. This will require each waste collection authority to make the necessary arrangements for the collection and processing of this material. The County Council would be obliged to pay a recycling credit equivalent to the saved disposal costs unless it wishes to make provision in the same way that it has for other recyclable materials in order to deliver cost benefits from the economies that can be achieved from the delivery of processing solutions on a county-wide scale.
- 58. At present only Eastleigh and Portsmouth offer food waste collections, and the County Council, in conjunction with its contractor, Veolia, has provided a food waste reception point at the Otterbourne and Portsmouth Transfer Stations as well as making arrangements for the processing of the resultant material.
- 59. The County Council has made an initial assessment of the suitability of the existing Transfer Station/Delivery Point network to be able to receive and store food waste prior to onwards transfer for processing. This assessment has identified that it will not be feasible for all Delivery Points to be able to provide dedicated food waste receptacles without upgrading work at a number of sites, and that for some it may not be possible at all.
- 60. The County Council has also requested that Veolia conducts an assessment of the availability of processing capacity within or near to Hampshire. This has identified a limited processing capacity in the local geographic area.
- 61. The County Council owned site at Chickenhall Lane, Eastleigh, currently benefits from planning permission for an Anaerobic Digestion facility, and it is recommended that the Council looks to explore the potential for delivering this in conjunction with the other recycling infrastructure business case developments proposed above.
- 62. It should be emphasised that the requirements to make arrangements for food waste collection fall to the Districts and Boroughs of Hampshire and not the County Council. Whilst there are obvious benefits from the County Council playing a facilitating role, or in providing infrastructure to support this new service where it is economic to do so in order to generate cost benefits from economies of scale, this should not lead to an additional cost burden on the County Council.

- 63. The Government has suggested that this and other new services will be supported by "additional resources" to meet the net new burden on local authorities, as re-iterated by the Recycling Minister, Rebecca Dow, in January⁴. However, it would be prudent for the County Council to set out the basis on which it is prepared to intervene in the provision of this new requirement, i.e. that the County Council would not be in a position to support any intervention which resulted in a net cost increase.
- 64. It is therefore recommended that approval is given for discussions with partners regarding food waste service options, which do not expose Hampshire County Council to costs over and above those it already meets for residual waste disposal.

Consultation and Equalities

65. The impact on service users as a result of this decision is neutral as the proposed decision is subject to the outcomes of the Environment Bill and to further government consultation. A change to the service residents will receive would be subject to a further decision and assessment once the legislation has been passed.

Conclusions

66. Given the recommendation not to pursue a co-mingled sMRF option in response to the need to increase recycling performance, further work will be necessary in order to establish whether or not there is a business case for the County Council to make infrastructure provision for either of the two remaining collection options (Twin Stream or Kerbside Sort), both in terms of delivery points and processing capacity.

⁴ <u>https://www.letsrecycle.com/news/latest-news/pow-reiterates-council-funding-pledge/</u>

REQUIRED CORPORATE AND LEGAL INFORMATION:

Links to the Strategic Plan

Hampshire maintains strong and sustainable economic growth and prosperity:	no
People in Hampshire live safe, healthy and independent lives:	no
People in Hampshire enjoy a rich and diverse environment:	yes
People in Hampshire enjoy being part of strong, inclusive communities:	no

Other Significant Links

Date			
April 2019			
Direct links to specific legislation or Government Directives			
Date			
2019-20			

Section 100 D - Local Government Act 1972 - background documents

The following documents discuss facts or matters on which this report, or an important part of it, is based and have been relied upon to a material extent in the preparation of this report. (NB: the list excludes published works and any documents which disclose exempt or confidential information as defined in the Act.)

Document	
None	

Location

EQUALITIES IMPACT ASSESSMENT:

1. Equality Duty

The County Council has a duty under Section 149 of the Equality Act 2010 ('the Act') to have due regard in the exercise of its functions to the need to:

- Eliminate discrimination, harassment and victimisation and any other conduct prohibited by or under the Act with regard to the protected characteristics as set out in section 4 of the Act (age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation);
- Advance equality of opportunity between persons who share a relevant protected characteristic within section 149(7) of the Act (age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex and sexual orientation) and those who do not share it;
- Foster good relations between persons who share a relevant protected characteristic within section 149(7) of the Act (see above) and persons who do not share it.

Due regard in this context involves having due regard in particular to:

- The need to remove or minimise disadvantages suffered by persons sharing a relevant characteristic connected to that characteristic;
- Take steps to meet the needs of persons sharing a relevant protected characteristic different from the needs of persons who do not share it;
- Encourage persons sharing a relevant protected characteristic to participate in public life or in any other activity which participation by such persons is disproportionally low.

2. Equalities Impact Assessment:

The impact on service users as a result of this decision is neutral as the proposed decision is subject to the outcomes of the Environment Bill and subject to further government consultation. A change to the service residents will receive would be subject to a further decision and assessment once the legislation has been passed.