Appendix B

Detailed Considerations for the Collections Options

Consideration	Options Most Affected	Details/Mitigation
Ease of Use of the Recycling System for Householders	Options 1,4,5 and 6	As Option 2 and 3 are fully co-mingled they are most similar to the current service received by most CBC residents. Options 1, 4 and 5 require varying degrees of pre-sorting by householders before placing materials out to be collected Option1 requires householders to sort their material into three different colour boxes, for example: Box 1: Plastic and cans, Box 2: Paper and Box 3: Card and glass. By collecting pre-sorted materials, crews can carry out collections more quickly and the materials can be sold for the greatest income to CBC Option 4, 5 and 6 require households to do some element of sorting by placing either glass or paper and card into a separate box. Within option 4 the purpose of this is to allow CBC to receive income from the paper and card. In Option 5, by separating glass, a lower gate fee can potentially be gained from a sorting facility. It is not unusual for authorities in the UK to require residents to sort their recyclables to some extent and with good levels of communication, there is no evidence that this is a barrier to the success of a recycling scheme.
Ease of Communication of Recycling System	All	As all schemes collect dry recyclables at the same time frequency, communicating how the scheme works should be simple. The WRAP Recycle Now programme has a wealth of ready-to-use design work and imagery to support the launch of any new service. If CBC decide to implement Option 6, communicating three weekly residual waste collections can be more complex, however, as a few authorities have already made this switch, there is a wealth of case study information and best practice to draw upon.
Contamination of Recycling by Householders	Options 2,3,4,5 and 6	The accidental or deliberate contamination of dry recycling is a problem for all authorities operating a wheeled bin or sack collection. Despite the best efforts of the crews, if non targeted or contaminated material is hidden it can increase the gate fee paid by CBC to reprocess this material. This does not impact Option 1, where material is sorted at the kerbside by collection crews and contamination can be removed at source.

Consideration	Options Most Affected	Details/Mitigation
Number of Containers per Household	Options 1,4,5 and 6	Option 1 requires 3 containers for the collection of dry recyclables and option 4, 5 and 6 require 2. CBC need to understand the restriction on households to store containers between collections, however, in most cases where a householder has capacity to store a wheeled bin for the current dry recycling service it is likely that an additional box (as needed in options 4,5 and 6) could be stored on top of, or to the side the bin. For Option 1, the current wheeled bin would be removed and in many places in the UK where storage is an issue, householders stack boxes to minimise the use
		of space. Where storage issues currently mean that householders cannot have a wheeled bin for the collection of dry recyclables, provision at these properties would need to be considered on a case-by-case basis.
Flexibility within the Fleet	Option 1,3,4,5 and 6	All collections options apart from Option 2 require the use of more specialised collection vehicles, using multi compartment vehicles, front pods or split back RCVs. This means that CBC will need to ensure that there is suitable spare capacity within any new fleet to accommodate breakdowns and vehicles servicing, as spare vehicles from other services cannot be used to deliver the dry recycling collections. All of the specialised vehicles specified within these options, can be hired, however they are not as readily available as conventional RCVs.
Materials Filling at Different Speeds in Multi- Compartment Vehicles	Option 1,3,4,5 and 6	All options apart from Option 2 use some sort of multi-compartment vehicle. This means that material will fill up at different speeds and require vehicles to tip once one becomes full. Within the collection modelling the volume and weight of each material is taken into account to understand this restriction and predict the number of vehicles needed to complete collections. In the event that any of these options are implemented, this restriction will need to be carefully considered as part of the vehicle routing exercise as waste composition and arisings will differ across the Central Bedfordshire area.

Consideration	Options Most Affected	Details/Mitigation
Tipping Points of Vehicles	Option 1, 3,4,5 and 6	As all options apart from Option 2 use some sort of multi-compartment vehicle, the effective tipping of these vehicles is essential for the efficient operation of the service. It is recommended that in all cases where vehicles need to tip multiple compartments, that this is done at the same location to maximise vehicle efficiency. As discussed in Section Error! Reference source not found., for Option 1 and 4 and 6 this necessitates the building of specific infrastructure for dry recycling at Elstow. Within Option 3, food waste would need to be able to be tipped at both the dry recycling and residual waste transfer station.
Properties with Access Issues	All	Within all options the method by which properties with access issues receive collections will need to be considered. Depending on the extent of the restriction, in most cases smaller versions of vehicles are available.
Properties with Communal Collections (Bulk Bins)	All	Properties which receive bulk bin collections have not been included within this analysis.