## Appendix 1 - Waste Management Options Appraisal Longlist

<table>
<thead>
<tr>
<th>Option</th>
<th>Green Residual</th>
<th>Grey Dry Recycling</th>
<th>Brown Garden Waste</th>
<th>Food Recycling</th>
<th>Bags/Boxes</th>
<th>Total Weekly Capacity (General + Dry Recycling)</th>
<th>Pros</th>
<th>Cons</th>
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</table>
| 1      | 240ltr bin     | 240ltr bin         | 240ltr bin         |               |            | 240ltr                                       | - Familiar.  
- Simple.  
- Only two or three containers.  
- Some capacity for improvement – increase capture rates, which are currently only 66% of available collected materials. | - Will not meet 50% recycling by 2020 as only avg. 32% of total waste is targeted in grey recycling bin and avg. 14% garden waste (on a free collection), which is a total of 46%.  
- Will not significantly reduce waste arisings.  
- Risk of rising disposal costs.  
- Risk of fines for not meeting recycling targets in 2020 and beyond.  
- Charge for GW is not popular. |
| 2      | 240ltr bin     | 240ltr bin         | 240ltr bin         |               |            | 240ltr                                       | - Familiar.  
- Simple.  
- Only two or three containers.  
- Some capacity for improvement – increase capture rates, which are currently only 66% of available collected materials.  
- Will increase recycling rate by approx. 4% (which was lost when charges were introduced).  
- Reduce flytipping.  
- Free GW would be popular. | - Cost to the Council – savings will therefore be required to come from elsewhere.  
- Might reduce home composting and charity donations.  
- Discourages re-use.  
- Increased waste collected per household.  
- Will not meet 50% recycling by 2020 as only avg. 32% of total waste is targeted in grey recycling bin and avg. 14% garden waste (on a free collection), which is a total of 46%.  
- Risk of rising disposal costs.  
- Risk of fines for not meeting recycling targets in 2020 and beyond. |
| 3      | 240ltr bin     | 240ltr bin         | 240ltr bin         | Bags / Boxes  |            | 275ltrs                                      | - Reduce landfill waste.  
- Reduce cost of collection and disposal.  
- Increase recycling to meet targets – all additional recyclable material, including other plastics, metals, WEEE and textiles is 13.2%, which is 45.2% dry recycling and an additional 10-14% garden waste recycling.  
- Easier for residents as additional recycling can be disposed of at the kerbside, rather than travel to a HWRC or other local recycling bank. | - Possibly increase the quantity of containers at each property.  
- Possible litter from boxes/bags and waste not being adequately secured.  
- Agreement already in place with MRWA for the range of materials we can collect for recycling - would possibly require contract variations and alterations to the MRF - COST.  
- Cost to supply additional containers and future replacements.  
- Possible additional collection costs.  
- Possible H&S issues e.g. manual handling of boxes. |
| 4      | 240ltr bin     | 240ltr bin         | 240ltr bin         | Food & Garden |            | 360ltrs                                      | - No additional containers required.  
- Less vehicles required.  
- Can still charge for the GW fraction of the bin.  
- Increase recycling through the addition of food. | - Must treat food waste more rigorously = more expensive treatment.  
- Already trialled in Wirral and was not successful. Very little food waste captured. IVC technology is unreliable.  
- Can lead to greater quantity of landfilled waste, if IVC treatment not successful.  
- Properties without a garden and no need for a 240ltr bin for food waste. |
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| 5      | 240ltr bin     | 240ltr bin        | 240ltr bin        | 23ltr bin     | 23ltr bin Weekly | 263ltr | - Increase Wirral’s recycling rate to 42%, assuming a 30% capture rate.  
- Less biodegradable waste to landfill.  
- Weekly collection of food waste likely to be more popular, especially in Summer. | - Increase the number of containers per household.  
- Cost to supply food waste containers (in house and external).  
- Replacement containers?  
- Supply caddy liners?  
- Cost to run additional service.  
- Capture of food waste likely to be low (around 30% of available – 7,000 tonnes of 23,000 tonnes, but can be as low as 10%).  
- Increases household waste capacity to 263ltrs per week, so total waste arisings likely to increase. |
| 6      | 240ltr bin     | 240ltr bin        | 240ltr bin        | 70ltr bin     | 70ltr bin Fortnightly | 275ltr | - Increase Wirral’s recycling rate to 42%, assuming a 30% capture rate.  
- Less biodegradable waste to landfill. | - Increase the number of containers per household.  
- Cost to supply special food waste containers (in house and external).  
- Requires a specific liner for optimum effectiveness – £12 per annum per property.  
- Replacement containers?  
- Cost to run additional service, but less than the weekly food waste collection option.  
- Capture of food waste likely to be low (around 30% of available – 7,000 tonnes of 23,000 tonnes, but can be as low as 10%).  
- Increases household waste capacity to 275ltrs per week, so total waste arisings likely to increase.  
- Fortnightly food waste collection using aerobic bin is untested on a large scale.  
- Understanding and acceptance of the aerobic bin chemistry and success. |
| 7      | 240ltr bin     | 240ltr bin        | 240ltr bin        | 23ltr bin     | 23ltr bin Weekly | 223ltr | - Encourage waste prevention and reduction, although overall capacity only 5ltrs less each week.  
- Reduce cost of collection and disposal.  
- Help encourage better use of dry recycling and the food waste collection systems.  
- AHP collection available for families requiring additional capacity for nappies or medical waste?  
- Remove the issue of “smelly waste” in bins for two (or more) weeks. | - Major change for residents.  
- Collection confusion – calendars essential.  
- Likely to be unpopular.  
- Increased risk of flytipping.  
- Disruption to service more difficult to manage (e.g. bad weather, industrial action).  
- Increased contamination in recycling bins.  
- Increased use of HWRC.  
- Cost of AHP collections – resident or Council to pay?  
- Another container for AHP collections – this could possibly highlight vulnerable properties. |
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<td>9</td>
<td>240ltr bin</td>
<td>240ltr bin</td>
<td>240ltr bin</td>
<td>70ltr bin</td>
<td>23ltr</td>
<td>235ltrs</td>
<td>- Encourage waste prevention and reduction – overall 25ltrs less capacity per week. - Reduce cost of collection and disposal. - Help encourage better use of dry recycling and the food waste collection systems. - AHP collection available for families requiring additional capacity for nappies or medical waste? - Remove the issue of “smelly waste” in bins for two (or more) weeks.</td>
<td>- 5ltrs less kerbside disposal capacity per week. - Would require a larger food waste container. - Major change for residents. - Collection confusion – calendars essential. - Likely to be unpopular. - Increased risk of flytipping. - Disruption to service more difficult to manage (e.g. bad weather, industrial action). - Increased contamination in recycling bins. - Increased use of HWRC. - Cost of AHP collections – resident or Council to pay? - Another container for AHP collections – this could possibly highlight vulnerable properties. - Fortnightly food waste collections are untested on a large scale for household collections.</td>
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<td>10</td>
<td>140ltr bin</td>
<td>240ltr bin</td>
<td>240ltr bin</td>
<td>70ltr bin</td>
<td>23ltr</td>
<td>213ltrs</td>
<td>- Encourage waste prevention and reuse through less capacity. - Reduce cost of collection and disposal. - Potentially increase recycling. - Retain a more frequent general waste collection. - Could also add in an optional AHP collection.</td>
<td>- 27ltrs per week less capacity – possibly require a larger food waste container to capture more of the org. catering. - Could be unpopular. - Increased risk of flytipping. - Cost of supplying new bins and/or containers. - Logistics of removal of old bins. - Increased contamination in recycling bins.</td>
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<td>11</td>
<td>140ltr bin</td>
<td>240ltr bin</td>
<td>240ltr bin</td>
<td>70ltr bin</td>
<td>Bags/Boxes</td>
<td>210ltrs</td>
<td>- Source separated recycling is compliant with Waste Framework Directive (TEEP). - Weekly collection of food and recycling. - Optional weekly / fortnightly collection of AHP. - Increased range of recycling collected at the kerbside. - Welsh collection systems – proving that this is an ideal collection to achieve recycling rates over 50%. - Encourages waste prevention and reuse. - Likely to increase quality of recycle.</td>
<td>- Logistics of removing current 240ltr grey bins. - Removal of 240ltr green bins. - Delivery of new 140ltr bins and recycling containers. - Replacement containers. - More sorting of recycling required by residents. - Lots of containers has not been popular when introduced in other areas.</td>
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