

## Appendix 1 - Waste Management Options Appraisal Longlist

Option	Green Residual	Grey Dry Recycling	Brown Garden Waste	Food Recycling	Bags/Boxes	Total Weekly Capacity (General + Dry Recycling)	Pros	Cons
1	240ltr bin Fortnightly	240ltr bin Fortnightly	240ltr bin Fortnightly (subscription)			240ltr	<ul style="list-style-type: none"> <li>- Familiar.</li> <li>- Simple.</li> <li>- Only two or three containers.</li> <li>- Some capacity for improvement – increase capture rates, which are currently only 66% of available collected materials.</li> </ul>	<ul style="list-style-type: none"> <li>- 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%.</li> <li>- Will not significantly reduce waste arisings.</li> <li>- Risk of rising disposal costs.</li> <li>- Risk of fines for not meeting recycling targets in 2020 and beyond.</li> <li>- Charge for GW is not popular.</li> </ul>
2	240ltr bin Fortnightly	240ltr bin Fortnightly	240ltr bin Fortnightly (free)			240ltr	<ul style="list-style-type: none"> <li>- Familiar.</li> <li>- Simple.</li> <li>- Only two or three containers.</li> <li>- Some capacity for improvement – increase capture rates, which are currently only 66% of available collected materials.</li> <li>- Will increase recycling rate by approx. 4% (which was lost when charges were introduced).</li> <li>- Reduce flytipping.</li> <li>- Free GW would be popular.</li> </ul>	<ul style="list-style-type: none"> <li>- Cost to the Council – savings will therefore be required to come from elsewhere.</li> <li>- Might reduce home composting and charity donations.</li> <li>- Discourages re-use.</li> <li>- Increased waste collected per household.</li> <li>- 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%.</li> <li>- Risk of rising disposal costs.</li> <li>- Risk of fines for not meeting recycling targets in 2020 and beyond.</li> </ul>
3	240ltr bin Fortnightly	240ltr bin Fortnightly	240ltr bin Fortnightly (subscription)		Bags / Boxes (Increase range of materials)	275ltrs	<ul style="list-style-type: none"> <li>- Reduce landfill waste.</li> <li>- Reduce cost of collection and disposal.</li> <li>- 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.</li> <li>- Easier for residents as additional recycling can be disposed of at the kerbside, rather than travel to a HWRC or other local recycling bank.</li> </ul>	<ul style="list-style-type: none"> <li>- Possibly increase the quantity of containers at each property.</li> <li>- Possible litter from boxes/bags and waste not being adequately secured.</li> <li>- 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.</li> <li>- Cost to supply additional containers and future replacements.</li> <li>- Possible additional collection costs.</li> <li>- Possible H&amp;S issues e.g. manual handling of boxes.</li> </ul>
4	240ltr bin Fortnightly	240ltr bin Fortnightly	240ltr bin Fortnightly Food & Garden (free)			360ltrs	<ul style="list-style-type: none"> <li>- No additional containers required.</li> <li>- Less vehicles required.</li> <li>- Can still charge for the GW fraction of the bin.</li> <li>- Increase recycling through the addition of food.</li> </ul>	<ul style="list-style-type: none"> <li>- Must treat food waste more rigorously = more expensive treatment.</li> <li>- Already trialled in Wirral and was not successful. Very little food waste captured. IVC technology is unreliable.</li> <li>- Can lead to greater quantity of landfilled waste, if IVC treatment not successful.</li> <li>- Properties without a garden and no need for a 240ltr bin for food waste.</li> </ul>

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5	240ltr bin Fortnightly	240ltr bin Fortnightly	240ltr bin Fortnightly (subscription)	23ltr bin Weekly		263ltrs	<ul style="list-style-type: none"> <li>- Increase Wirral's recycling rate to 42%, assuming a 30% capture rate.</li> <li>- Less biodegradable waste to landfill.</li> <li>- Weekly collection of food waste likely to be more popular, especially in Summer.</li> </ul>	<ul style="list-style-type: none"> <li>- Increase the number of containers per household.</li> <li>- Cost to supply food waste containers (in house and external).</li> <li>- Replacement containers?</li> <li>- Supply caddy liners?</li> <li>- Cost to run additional service.</li> <li>- 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%).</li> <li>- Increases household waste capacity to 263ltrs per week, so total waste arisings likely to increase.</li> </ul>
6	240ltr bin Fortnightly	240ltr bin Fortnightly	240ltr bin Fortnightly (subscription)	70ltr bin Fortnightly		275ltrs	<ul style="list-style-type: none"> <li>- Increase Wirral's recycling rate to 42%, assuming a 30% capture rate.</li> <li>- Less biodegradable waste to landfill.</li> </ul>	<ul style="list-style-type: none"> <li>- Increase the number of containers per household.</li> <li>- Cost to supply special food waste containers (in house and external).</li> <li>- Requires a specific liner for optimum effectiveness - £12 per annum per property.</li> <li>- Replacement containers?</li> <li>- Cost to run additional service, but less than the weekly food waste collection option.</li> <li>- 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%).</li> <li>- Increases household waste capacity to 275ltrs per week, so total waste arisings likely to increase.</li> <li>- Fortnightly food waste collection using aerobic bin is untested on a large scale.</li> <li>- Understanding and acceptance of the aerobic bin chemistry and success.</li> </ul>
7	240ltr bin 3-Weekly	240ltr bin Fortnightly	240ltr bin Fortnightly (subscription)	23ltr bin Weekly		223ltrs	<ul style="list-style-type: none"> <li>- Encourage waste prevention and reduction, although overall capacity only 5ltrs less each week.</li> <li>- Reduce cost of collection and disposal.</li> <li>- Help encourage better use of dry recycling and the food waste collection systems.</li> <li>- AHP collection available for families requiring additional capacity for nappies or medical waste?</li> <li>- Remove the issue of "smelly waste" in bins for two (or more) weeks.</li> </ul>	<ul style="list-style-type: none"> <li>- Major change for residents.</li> <li>- Collection confusion – calendars essential.</li> <li>- Likely to be unpopular.</li> <li>- Increased risk of flytipping.</li> <li>- Disruption to service more difficult to manage (e.g. bad weather, industrial action).</li> <li>- Increased contamination in recycling bins.</li> <li>- Increased use of HWRC.</li> <li>- Cost of AHP collections – resident or Council to pay?</li> <li>- Another container for AHP collections – this could possibly highlight vulnerable properties.</li> </ul>

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9	240ltr bin 3-Weekly	240ltr bin Fortnightly	240ltr bin Fortnightly (subscription)	70ltr bin Fortnightly		235ltrs	<ul style="list-style-type: none"> <li>- Encourage waste prevention and reduction – overall 25ltrs less capacity per week.</li> <li>- Reduce cost of collection and disposal.</li> <li>- Help encourage better use of dry recycling and the food waste collection systems.</li> <li>- AHP collection available for families requiring additional capacity for nappies or medical waste?</li> <li>- Remove the issue of “smelly waste” in bins for two (or more) weeks.</li> </ul>	<ul style="list-style-type: none"> <li>- 5ltrs less kerbside disposal capacity per week.</li> <li>- Would require a larger food waste container.</li> <li>- Major change for residents.</li> <li>- Collection confusion – calendars essential.</li> <li>- Likely to be unpopular.</li> <li>- Increased risk of flytipping.</li> <li>- Disruption to service more difficult to manage (e.g. bad weather, industrial action).</li> <li>- Increased contamination in recycling bins.</li> <li>- Increased use of HWRC.</li> <li>- Cost of AHP collections – resident or Council to pay?</li> <li>- Another container for AHP collections – this could possibly highlight vulnerable properties.</li> <li>- Fortnightly food waste collections are untested on a large scale for household collections.</li> </ul>
10	140ltr bin Fortnightly	240ltr bin Fortnightly	240ltr bin Fortnightly (subscription)	23ltr bin Weekly		213ltrs	<ul style="list-style-type: none"> <li>- Encourage waste prevention and reuse through less capacity.</li> <li>- Reduce cost of collection and disposal.</li> <li>- Potentially increase recycling.</li> <li>- Retain a more frequent general waste collection.</li> <li>- Could also add in an optional AHP collection.</li> </ul>	<ul style="list-style-type: none"> <li>- 27ltrs per week less capacity – possibly require a larger food waste container to capture more of the org. catering.</li> <li>- Could be unpopular.</li> <li>- Increased risk of flytipping.</li> <li>- Cost of supplying new bins and/or containers.</li> <li>- Logistics of removal of old bins.</li> <li>- Increased contamination in recycling bins.</li> </ul>
11	140ltr bin Fortnightly		240ltr bin Fortnightly (subscription)	23ltr bin Weekly	Bags / Boxes Source separated materials	210ltrs	<ul style="list-style-type: none"> <li>- Source separated recycling is compliant with Waste Framework Directive (TEEP).</li> <li>- Weekly collection of food and recycling.</li> <li>- Optional weekly / fortnightly collection of AHP.</li> <li>- Increased range of recycling collected at the kerbside.</li> <li>- Welsh collection systems – proving that this is an ideal collection to achieve recycling rates over 50%.</li> <li>- Encourages waste prevention and reuse.</li> <li>- Likely to increase quality of recyclate.</li> </ul>	<ul style="list-style-type: none"> <li>- Logistics of removing current 240ltr grey bins.</li> <li>- Removal of 240ltr green bins.</li> <li>- Delivery of new 140ltr bins and recycling containers.</li> <li>- Replacement containers.</li> <li>- More sorting of recycling required by residents.</li> <li>- Lots of containers has not been popular when introduced in other areas.</li> </ul>