Appendix 1
Nine options were modelled using Ricardo Energy & Environment's in-house collections model

- Option 0 – Baseline service in April 2016
- Option 1 - Weekly Two-stream (glass out) fortnightly residual
- Option 2 - Weekly Three-stream (glass and paper out) fortnightly residual
- Option 3 - Weekly commingled fortnightly residual waste
- Option 4 - Fortnightly two-stream (glass out) weekly residual, no food waste
- Option 5 - Fortnightly three-stream (glass and paper out) weekly residual, no food waste
- Option 6 - Fortnightly fully commingled weekly residual waste, no food waste
- Option 7 - Fully commingled AWC
- Option 7a - Fully commingled AWC, glass out
- Option 8 - Fully commingled AWC, no food waste

Appendix 2 - Options were rated for projected dry recycling rate change based on residual waste capacity and the complexity of the collection system

Option	Option description	Weekly available capacity	Number of dry recycling containers	Total containers including residual and food	Rating for projected dry recyclate yield	Justification
Opt 0	Current service	Sacks	4	6	N/A	Baseline performance
Opt 1	Weekly Two-stream (glass out) fortnightly residual	120l	2	4	Large increase	Option 1 would constrain weekly available residual waste capacity to 120l (240l wheelie bin collected fortnightly) and would reduce the number of dry recycling containers from 4 to 2.
Opt 2	Weekly Three-stream (glass and paper out) fortnightly residual	120l	3	5	Moderate increase	Option 2 would constrain weekly available residual waste capacity to 120l (240l wheelie bin collected fortnightly) and would reduce the number of dry recycling containers from 4 to 3.
Opt 3	Weekly commingled fortnightly residual waste	120l	1	3	Largest increase	Option 3 would constrain weekly available residual waste capacity to 120l (240l wheelie bin collected fortnightly) and would reduce the number of dry recycling containers from 4 to 1.
Opt 4	Fortnightly two-stream (glass out) weekly residual, no food waste	240l	2	3	Small increase	Option 4 would constrain weekly available residual waste capacity to 240l (240l wheelie bin collected weekly) and would reduce the number of dry recycling containers from 4 to 2.
Opt 5	Fortnightly three-stream (glass and paper out) weekly residual, no food waste	240l	3	4	Smallest increase	Option 5 would constrain weekly available residual waste capacity to 240l (240l wheelie bin collected weekly) and would reduce the number of dry recycling containers from 4 to 3.
Opt 6	Fortnightly fully commingled weekly residual waste, no food waste	240l	1	2	Moderate increase	Option 6 would constrain weekly available residual waste capacity to 240l (240l wheelie bin collected weekly) and would reduce the number of dry recycling containers from 4 to 1.
Opt 7	Fully commingled AWC	120l	1	3	Very large increase	Option 7 would constrain weekly available residual waste capacity to 120l (240l wheelie bin collected fortnightly) and would reduce the number of dry recycling containers from 4 to 1.
Opt 7a	Fully commingled AWC, glass out	120l	2	4	Very large increase	Option 7a would constrain weekly available residual waste capacity to 120l (240l wheelie bin collected fortnightly) and would reduce the number of dry recycling containers from 4 to 2.
Opt 8	Fully commingled AWC, no food waste	120l	1	2	Very large increase	Option 8 would constrain weekly available residual waste capacity to 120l (240l wheelie bin collected fortnightly) and would reduce the number of dry recycling containers from 4 to 1.

Appendix 3
Red/Amber/Green options appraisal based on modelling outputs

		Current service	Weekly Two-stream (glass out) fortnightly residual	Weekly Three-stream (glass and paper out) fortnightly residual	Weekly commingled fortnightly residual waste	Fortnightly two-stream (glass out) weekly residual, no food waste	Fortnightly three-stream (glass and paper out) weekly residual, no food waste	Fortnightly fully commingled weekly residual waste, no food waste	Fully commingled AWC	Fully commingled AWC, glass out	Fully commingled AWC, no food waste
		Opt 0	Opt 1	Opt 2	Opt 3	Opt 4	Opt 5	Opt 6	Opt 7	Opt 7a	Opt 8
Ease of Use for resident											
Cost (numbers show Rank)		8	10	9	6	4	7	3	2	5	1
Modelled Potential Recycling Performance		27%	34-41%	33-38%	36-42%	23-27%	23-25%	24-29%	36-42%	35-41%	28-34%
Quality of Materials											
Ease of delivery for Council	**Vehicles**										
	MRF	Need mini-MRF	Need a MRF for paper, card, cans & plastic, bulking for glass	Need mini-MRF to sep plastic & cans	Need MRF which takes fully co-mingled	Need a MRF for paper, card, cans & plastic, bulking for glass	Need mini-MRF to sep plastic & cans	Need MRF which takes fully co-mingled	Need MRF which takes fully co-mingled	Need a MRF for paper, card, cans & plastic, bulking for glass	Need MRF which takes fully co-mingled
TEEP (considers dry recyclate)	**Technical Practicability**										
	Environmental Practicability (dry recycling rate)	18%	24-32%	23-27%	27-33%	21-25%	21-22%	22-27%	27-32%	26-32%	27-33%
	Economic Practicability (change in overall service cost)	0	2-15%	-22% to 3%	-14% to -4%	-23% to -7%	-19% to -2%	-18% to -8%	-34% to -12%	-30% to -6%	-42% to -16%

Appendix 4
Total service cost and recycling rate