Gloucestershire
COUNTY COUNCIL

Report of the Residual Waste Working Group

November 2014

Report of the cross-party group set up by GCC in May 2013 to bring a recommendation to GCC on a fall back strategy should the Council's contract with UBB for an Energy from Waste facility at Javelin Park fail.

Residual Waste Working Group (RWWG) Report to Gloucestershire County Council

Chairman's Foreword

In August 2013, I was asked to take on the role of independent Chairman of Gloucestershire County Council's Residual Waste Working Group. The brief was to provide an independent and impartial voice for the working group, to enable it to consider options available to dispose of residual household waste, to help the Working Group reach a fully considered and balanced position on the fallback options and to make recommendations for an alternative strategy to dispose of Gloucestershire's residual household waste in the event that the contract with Urbaser Balfour Beatty fails.

The Working Group, consisting of eight elected members of the County Council and myself, and ably supported by the County Council's professional officers, met on thirteen occasions between September 2013 and November 2014. We also made three visits to waste management facilities out of Gloucestershire. At our meetings we received presentations and reports and heard from a number of outside experts and interest groups, as well as from the County Council's own officers. We considered and debated the evidence and advice that we received.

I saw my role as being to facilitate the elected members' learning, debate, deliberations and decision making.

I am very pleased now to present the Working Group's report. I know that the management of household waste has been an issue of much public and political controversy in Gloucestershire, as it has in many other places. It is therefore especially pleasing that this report has the unanimous agreement of all members of the Working Group.

I am most grateful for the welcome I received in Gloucestershire, for the constructive and good humoured engagement of elected members, and for the able, patient and committed support of the County Council's and Joint Waste Team officers.

David Jenkins November 2014

1. Introduction

In February 2013 Urbaser Balfour Beatty (UBB) was awarded a contract to deliver a service to manage Gloucestershire's municipal residual waste. This included an energy from waste facility located at Javelin Park. In March 2013 the proposal failed to achieve planning permission and was referred to the Secretary of State on appeal. A public inquiry took place in the winter of 2013/14 and a report was submitted to the Secretary of State by the planning inspectorate in May 2014. At the time of finalising this report, the Secretary of State's decision is expected to be known in December 2014.

In May 2013 the county council resolved to form a Residual Waste Working Group (RWWG) with the purpose of making recommendations for a fall-back strategy to dispose of Gloucestershire's residual household waste in the event that the residual waste solution proposed by UBB ("Plan A") cannot be delivered.

This report presents the recommendations of the RWWG for the County Council's consideration.

A glossary of acronyms and terms is included as Appendix D.

2. Executive Summary

The cross-party Residual Waste Working Group (RWWG) was tasked to bring recommendation to the Council on a fall back strategy should the Council's contract with UBB for the future disposal of residual waste fail.

The RWWG met monthly from September 2013 to November 2014 supported by an independent Chair and officers from GCC and the County's Joint Waste Team. Members reviewed the options available, heard from independent speakers and visited a number of facilities.

Members established that this is not a straightforward market and there are a number of uncertainties within a complex set of variables. Prior to eliminating any options, the RWWG formulated a number of key principles which would help to narrow down the options. Members felt it particularly important that the future solution did not compromise the opportunity to increase recycling/composting rates significantly, and that recycling should continue to be strongly supported to drive waste up the waste hierarchy and minimise the residual fraction requiring treatment. Members were also keen that in any solution or part solution involving energy recovery, energy efficiency should be maximised through Combined Heat and Power (CHP) where possible.

Members noted with interest that there are a number of new, variant or combinations of existing technologies in various stages of development but concluded that any technology that is not proven at a commercial scale would fall outside the envelope of acceptable risk.

On this basis three options remained:-

Option 1 – Specify and procure own Energy from Waste (EfW) facility locally

Option 2 – Specify and procure own Mechanical Treatment (MT) or Mechanical Biological Treatment (MBT) facility locally to produce a Solid Recovered Fuel (SRF) fuel. There is potential for a two-phase approach to this option: Phase 1 process waste to produce fuel (which has a market and could be exported out of county) and an optional phase 2 to procure a local facility to use the fuel to generate energy.

Option 3 – Contract with one or more providers of existing or proposed facilities (without geographical or technical constraint) on a shorter term basis.

Most members of the RWWG felt there were reasons to consider option 1 particularly if CHP could be delivered. However the group felt that if the UBB appeal fails then the prospects of succeeding with a new option 1 proposal were highly uncertain and could prolong the process significantly with an unacceptable level of risk around a successful outcome.

The group therefore recommends that, if a fallback strategy is required, the next step should be to "soft market test" the two remaining options 2 and 3, noting that option 2 could be delivered in one or two phases. Soft market testing for Option 2 should concentrate on the first phase initially owing to the need to deliver a solution as soon as possible. The Group recommend that the key principles outlined in section 8 of this report should be taken into account and that this work be delegated to the Joint Waste Committee to bring back recommendations to the County Council.

3. Background

a. Gloucestershire's need for MSW waste solution

Continuing to landfill non-inert waste is neither environmentally nor financially sustainable in the long term. The diversion of organic waste from landfill is essential to meet EU targets for limiting the amount of biodegradable municipal waste (BMW) sent to landfill. It is essential to reduce the amount of methane gas that is produced through landfilling. Methane is a greenhouse gas over 20 times more powerful than carbon dioxide in terms of its global warming potential and landfill contributes 27% of the UK's total methane production. In addition, landfill tax has risen from £18 per tonne in 2005 to £80 per tonne in 2014. From 2015, it is anticipated that landfill tax will continue to rise in line with inflation.

b. JMWMS & Core Strategy

Joint Municipal Waste Management Strategy (JMWMS)

The JMWMS was developed by the Gloucestershire Waste Partnership (GWP), a partnership between the seven Gloucestershire waste authorities. The JMWMS determines how the county's municipal solid waste (MSW) will be managed in Gloucestershire up to 2020. All seven authorities have adopted the JMWMS. It can be found at www.recycleforgloucestershire.com

The principles of the waste hierarchy are reflected in the strategy which, through its nine objectives, aims to drive the management of Municipal Solid Waste (MSW) up the waste hierarchy. The strategy aims to minimise waste generation, ensure it is reused where possible, then recycled or composted. Any residual waste that cannot be reused, recycled or composted should be treated to recover any potential value (such as energy). Disposal should only be used as the last resort.

There are two elements within the strategy which are particularly relevant to the RWWG:

Objective 5: Residual waste as a resource

> *"To provide residual waste treatment capacity to divert waste from landfill, and find or develop markets for recovered materials. Our preferred treatment processes will optimise recovery of recyclables and gain further value from residual waste before disposal."*

Target 3: Recycling and composting:

> *Recycling and composting target (2019/20) – 60%*
>
> *Residual waste per capita target (2019/20) – 228kg*

c. Waste Core Strategy (WCS)

Gloucestershire's WCS was adopted in November 2012. This document sets out Gloucestershire's infrastructure planning framework for waste management facilities until 2027/28. It is used by the council to make decisions about planning applications for waste management facilities. The strategy will also inform developers about the type of development that will be acceptable and at what locations within the county.

To determine the number and types of sites required to manage waste, it is important to understand the potential tonnage of waste (household waste, recyclables, garden, commercial, industrial and hazardous) produced and managed in the county now and in the

future, and also the infrastructure required, such as transfer stations and treatment facilities. With regard to annual residual waste tonnage requirements in the county, a lower limit has been set at 108,000 tonnes with an upper limit of 145,000 tonnes by 2027/28. This figure is determined by considering a number of factors, such as the population and the number of potential households in the future and the county achieving its recycling and composting targets. This was thoroughly scrutinised during the WCS examination in public in 2012.

The WCS details not only the policies that will need to be taken into consideration when assessing sites for waste management, but also identifies sites for strategic waste facilities in Gloucestershire. The WCS identifies five sites within the county which are considered suitable for residual waste treatment facilities.

d. Brief History of the Residual Waste Project ("Plan A")

In May 2005, GCC cancelled its waste disposal procurement project due to escalating costs and the uncertainty around the markets for the product produced by mechanical biological treatment (MBT).

In 2007, GCC undertook an appraisal of potential residual waste technology scenarios that could enable the recovery of additional materials for recycling and gain further value from waste, including energy. In October 2007, the Cabinet approved five technology scenarios that were recognised as being potential solutions for Gloucestershire:

1. EfW with Combined Heat & Power (CHP);
2. Mechanical Biological Treatment (MBT) producing a biologically stabilised material that is sent to landfill;
3. Mechanical Biological Treatment (MBT) producing a fuel sent to a dedicated CHP;
4. Autoclave producing recyclates and an active fibre fuel that is sent to a dedicated CHP; and
5. Advanced Thermal Treatment (ATT) with syngas used to produce electricity and recovery of heat energy (CHP).

In November 2007 the Cabinet approved that the procurement for a residual waste solution would be technology-neutral meaning that any company bidding for the residual waste contract would be able to bring forward any technology or combination of technologies, as long as the solution met a number of objectives (which were set out in the draft specification for the residual waste project). Specifically, such capacity should provide a solution that is:

- full (rather than partial) and complete 'closed loop' solution;
- deliverable;
- flexible;
- environmentally sustainable;
- optimal in materials and energy recovery; and
- Value for Money over the life for the contract.

The Cabinet decision also included the approval to develop and submit a business case to government for PFI credits to help finance the residual waste project. The council subsequently submitted its outline business case to Defra in April 2008 and in November 2008 Defra awarded the council £92 million of PFI credits.

As part of the conditions for the award of PFI credits the council acquired 12 acres of the site, Javelin Park, near Haresfield, Gloucestershire. However the council stated it had no preferred site or sites that bidders should use to deliver residual waste infrastructure for this project. DEFRA withdrew the support of PFI credits in October 2010, but an assessment concluded that continuing the procurement was value for money compared to resorting back to landfill reliance.

The procurement commenced in January 2009 following Defra approval of £92m of PFI credits. The procurement was split into a number of stages, where the number of bidders was reduced from eight overall in 2009 to one bidder at the end of 2011. The successful bidder was Urbaser Balfour Beatty (UBB) who proposed to design, build, finance and operate an energy from waste (EfW) facility at Javelin Park, although as part of the procurement, GCC had received bids that proposed MBT, mechanical treatment (MT), advanced thermal treatment (ATT) and EfW to deal with the county's residual waste. The contract with UBB was signed in February 2013.

UBB submitted their planning application to the GCC Waste Planning Authority (WPA) in January 2012, and in March 2013, was refused planning permission by GCC's Planning Committee. UBB then lodged an appeal with the Secretary of State in June 2013 and a public inquiry was held between November 2013 and January 2014. At the time of finalising this report, the Secretary of State is due to make a decision on or before 22nd December 2014.

In addition to this, UBB submitted their application to the Environment Agency for an environmental permit in February 2012 and received its environmental permit in May 2013.

4. The Role of the RWWG

a. Group origins

At the meeting of the County Council on 15th May 2013 a motion was agreed:

'This Council should immediately establish a 'Plan B' cross-party working group to consider alternatives to the current proposals for a waste incinerator at Javelin Park, to be made available in the event that the Council's current contract proposal with UBB ultimately fails.'

b. Terms of Reference

At the Residual Waste Working Group's (RWWG) first meeting in September 2013 members agreed Terms of Reference for the group setting out the scope of its work and its outputs (see Appendix A).

c. Scope as determined by The County Council

All matters relating to waste in Gloucestershire and the development of an effective and economic fall-back strategy were within scope.

All matters relating to the contract between UBB and the County Council and UBB's planning application and appeal were out of scope.

The group acted to ensure that its activities did not prejudice the Council's contract with UBB, their planning appeal, or any future procurement.

d. Output as determined by The County Council

To make recommendations to Council for a fallback strategy to dispose of Gloucestershire's residual household waste in the event that the contract with UBB fails.

e . Membership of the group:

Group Affiliation	Names
2 Conservative County Councillors	Tim Harman, Patrick Molyneux
2 Liberal Democrat County Councillors	Simon Wheeler, Bill Whelan
2 Labour County Councillors	Tracy Millard. Brian Oosthuysen
1 UKIP County Councillor	Alan Preest
1 Green County Councillor	Sarah Lunnon

David Jenkins, former Chief Executive of Dorset County Council was appointed Independent Chair of the RWWG. His role has been to facilitate the group's learning about waste

management and assist it in drawing up recommendations for a fall-back strategy.

The RWWG was also supported by a number of GCC officers, some who have routinely attended the meetings, whilst others attended on an ad hoc basis. The support team has consisted of:

GCC /JWT officer team:

- Lead officer – Duncan Jordan, Chief Operating Officer/Christine Wray, Head of Legal Services
- Technical Lead – Lisa Pritchard, Deputy Project Lead, Waste Disposal Authority/Steve Read, Head of Service, Joint Waste Team (JWT)
- Technical officer - Rachel Ferris, Waste Technical Officer/Tony Childs, Waste Services Manager, Joint Waste Team (JWT)
- Secretariat – Sidgoree Nelson, Project Officer, Democratic Services/Joanne Bolton – Democratic Services Advisor, Democratic Services

Ad hoc support has been given by the following officers:

- Kevin Phillips, Team Leader, Minerals and Waste Planning Policy
- Ian Mawdsley, Project Lead, Residual Waste Project

5. RWWG Process - what the RWWG did, where they went and who they heard from

In accordance with the scope of the Terms of Reference (see Appendix A), prior to any discussions on the potential options for an alternative strategy if the contract with UBB failed, the RWWG were given a number of presentations to set the background. The presentations covered a number of areas such as the Joint Municipal Waste Management Strategy, Waste Core Strategy and waste planning, technologies and commercial risks. This was to ensure the whole group had a similar level of understanding of waste management and the issues the council and its district partners face. A list of the presentations and papers presented to the group are detailed in Appendix B.

Members identified a number of technologies they would like to see and visits were arranged to see the following technologies:

- Mechanical Biological Treatment and advanced thermal treatment (New Earth Solutions, Avonmouth)
- Plasma arc (Advanced Plasma Power, Swindon)

- Energy from waste (Veolia, Portsmouth)

The Group heard from representatives of external organisations:

- GlosVAIn
- Dr Daryl Hill, WIDP/Environment and Energy Ltd (on behalf of Defra)
- Tom Jarman, BioCentre

6. Technology Options available

It is not intended to provide detailed descriptions of the various generic technology options here. The group however commend a series of papers produced by Defra to provide assistance to Local Authorities and the waste management market generally through awareness-raising of the key municipal waste management options for the diversion of residual municipal waste from landfill. These papers provide an essential guide to the whole range of mainstream technologies and can be found at:-

https://www.gov.uk/government/publications/energy-from-waste-a-guide-to-the-debate

7. Key issues considered:

a. Affordability

The terms of reference required the Group to consider technology options available to manage and treat residual waste that can offer an "effective and economic", "affordable and deliverable" and "value for money" solution.

The affordability criteria were not specified but the Group were aware of the council's financial situation through the Medium Term Financial Strategy process ("Meeting The Challenge 2") . They considered that in terms of disposal costs, the main benchmark is the cost of landfill. This is currently over £100/T in Gloucestershire and it is expected to rise with inflation. As landfill remains an option (albeit environmentally undesirable for the majority of waste types) the fall back strategy should identify options which are likely to provide a comparable, if not better, price.

It was noted that the current Cory landfill contract will end in August 2018. A further landfill contract could be let but the lead-in time for delivering substantial facilities from a standing start could be longer than this.

One of the attractions of a local facility is that it reduces costs of road haulage which can add around 40-70p per tonne per mile to the total bill for disposal. This can be significant and must be factored in to any comparison of gate fees.

In addition to the distance factor, the price may vary according to the duration of contract. Traditionally the longer the contract period, the lower the price per tonne. This is particularly the case when facilities are being built specially for a customer as the fixed, capital cost element can be discounted over a longer period.

However the market is currently more dynamic with potentially competitive short term options. EfW/CHP facilities in Holland, Germany and Sweden have spare capacity and are offering attractive gate fees, sufficient to still be economic after haulage and shipping costs have been factored in. This is predicted by some to be a relatively short term situation but it is offering competition and could provide a viable economic short term option for pre-treated waste.

b. Changes in waste volume and composition

There has been a recent change to what had been fairly stable trends over time. The county saw a steady decline in waste arisings for around ten years. This was largely due to a combination of exclusion of trade waste from the household stream, improved kerbside recycling and, since 2008, the recession. Over the last two years the recycling rate has plateaued and waste arisings have started to climb again. A number of factors are at play including growth in the number of households and the economic recovery. Reversing this stagnation is proving problematic for local authorities across England. Appendix C is a map summarising the range of services in the county. There is still considerable scope for recycling performance to improve within the county, by proven means, subject to resources becoming available. The group felt that this could more easily be achieved and /or accelerated if all councils were members of the Joint Waste Committee as this could yield savings that could be reinvested. The group would encourage the county council and its JWC partners to continue to invest in education and other means of encouraging recycling.

The Group were therefore firmly of the opinion that the strategy should, as per the current one, avoid any potential obstacle to minimising waste and maximising recycling of the remaining fraction. using 70% as the aspirational target. The group also advocated translating that into a more directly relevant target of kg per household not recycled or composted.

c. Future Legislation

Since 2010 government has largely adopted a non-intervention strategy with regard to

waste policy although it has strongly advocated weekly refuse collections. Reverting to weekly refuse collections would cost Gloucestershire councils several millions of pounds per annum and is predicted to reduce the recycling rate. As in the last 20 or so years, the main thrust for waste policy is coming from the EU. In July 2014 the Commission issued a communication regarding review of EU waste policy and legislation. This *proposes* an EU wide 70% recycling target for municipal waste by 2030. Whether and/or how this might be transposed into UK law is still to be determined but EU pressure for improved waste reduction and recovery rates and producer responsibility for both household and commercial waste will undoubtedly persist.

d. Technologies Under Development

The Group were interested to note that a number of entrepreneurial individuals and enterprises were attempting to develop new or variant waste technologies for treating household waste although most were not demonstrable at a commercial level (ie at a scale that would be economic) with household waste as a fuel. The Group felt this was Catch 22 situation - investment in unproven technology is risky; however it is not possible to prove technology can work effectively and economically without significant investment.

The firm advice from the WIDP representative at the June 2014 meeting was that many such projects (including Advanced Plasma Power) had been supported by the Government's New Technologies Programme and investment in such solutions should be outside the range of acceptable risk tolerance for local authorities.

e. Regional capacity

The Group asked officers to research whether existing facilities within the region had spare capacity. Noting this was a highly dynamic situation, it was clear that at the time of enquiry there was a significant level of capacity that might be available on a short or longer term basis. A limited market study has shown that before 2018 there will be limited capacity in the treatment market with only two MBT facilities having capacity in the short term. However after 2018 the market looks to be more open with over ten MBT/EfW facilities reporting possible capacity. This suggested that if this option were soft market tested, the Council could reasonably expect interest from regional providers.

f. Energy Issues

It is reasonable to assume that energy prices will continue to rise over inflation in the long term and therefore any material suitable for combustion in a Waste Incineration Directive

compliant plant will increase in value accordingly. In the case of waste material this is likely to be manifested in lower gate fees for receiving the material for anyone entering into a new contract. This raises the question as to whether the Council would be better off in the long term retaining the income from energy generation (as in the UBB project) or whether this should be shared with a plant operator or whether no interest in income is taken once material is delivered. The latter would be the case if, for example, SRF is exported for combustion in a merchant facility.

Retaining the income from energy generation would be expected to result in a higher gate fee but, over time, this could tip the net cost of the project in favour of the council. Agreeing a contract with just a gate fee would increase certainty over costs but would exclude the potential for an opportunity.

A further issue arises from the fact that processing material through MT or MBT takes energy and whether the net benefit of this is positive in comparison with a conventional EfW option where waste is not pre-processed. Processing the waste will involve costs but it will also reduce water content (reducing the total tonnage for disposal) and increase the calorific value which will reduce the gate fee.

8. Key principles of consensus that underpinned the option appraisal

Having considered the range of options and the key issues, members reached consensus that the fallback strategy should:

- deliver a solution that will deal with the Waste Core Strategy's predictions of waste arisings.
- deliver a solution that accepts existing recycling targets
- encourage the council and its partners to do what it can to accelerate towards achieving the recycling targets of 60% and potentially 70%
- provide that in entering any contract to treat residual waste, any guaranteed minimum tonnage should not act as a perverse incentive or prevent the ability of the council to continue to improve recycling performance
- recognise that it would not be prudent for the council to contract with an operator whose technology was not proven at a commercially operational scale.
- encourage the remaining two districts to join the Joint Waste Committee to promote a joined up countywide approach to maximising waste diversion.
- promote investment in education and other means of encouraging waste minimisation and recycling

9. Options considered and not put forward

Having considered the options, the group felt that the following options should be discounted:

a. Unproven Advanced Thermal Treatment and Autoclave options. As explained above investment in unproven technology carries risks which, when proven options are available, are too high for local authorities.

b. MBT with high Compost Like Output (CLO) content sent to landfill. CLO from MBT operations processing residual waste will have contaminants that deem them unsuitable for use in any other application than brownfield or former landfill site restoration. This option also reduces the amount of calorific material available for a Solid Recovered Fuel (SRF) fraction.

c. Landfill in the longer term. The group recognised that some waste will continue to end up in landfill probably for at least the next 5-10 years. The question arose as to whether landfill is a route of absolute last resort or still acceptable (or even desirable, in lieu of better options, for some parts of the waste stream) or as a buffer for future flexibility. The group took the view that landfill might provide some short term buffer capacity but the objective should be, as soon as reasonably practicable (with regard to affordability, lead in times for alternatives etc.) to restrict landfill to certain hazardous and inert materials if it cannot be eliminated altogether.

10. Remaining Options

Having looked at a wide range of options and having taken officer and independent expert advice, the Group narrowed the options down to three which could be potentially deliverable within an acceptable range of risk. None of these options are fully formed and they have not been costed/priced because all, and particularly options 2 & 3, could involve a large number of permutations in terms of technology and outputs. Some of these may not be affordable.

The group were clear that while it could narrow down the range of viable options to three, in the absence of market testing it could not identify one clearly preferred solution at this stage. However, while market testing will provide more certainty, in such a complex market it only reduces the bounds of risk for deliverability and cost.

The Group were unanimous that all options must not be prejudicial or a disincentive to the

achievement of a municipal recycling rate of up to 70% (and possibly beyond). This report notes the recent (July 2014) EU communication regarding review of EU waste policy and legislation which *proposes* an EU wide 70% recycling target for municipal waste by 2030. It is beyond the remit of the group to consider if, how or when this target might be transposed into UK law or how it could be achieved in Gloucestershire. But the group were concerned that whatever solution is adopted, it should allow for a level of diversion away from landfill of this magnitude.

The three options are:

Option 1 – Specify and procure own Energy from Waste (EfW) facility locally

Option 2 – Specify and procure own Mechanical Treatment (MT) or Mechanical Biological Treatment (MBT) facility locally to produce a Solid Recovered Fuel (SRF). On its own this would not provide a final disposal solution but there is potential for a two-phase approach to this option.

Option 3 – Contract with one or more providers of existing or proposed facilities (without geographical or technical constraint) on a shorter term basis

11. Options in detail

Option 1 – Specify and procure an Energy from Waste (EfW) facility locally

This would involve pursuing a new, differentiated proposal, which would have to address the reasons for failure of the UBB application, should this turn out not to be deliverable.

A further proposal would almost certainly be centred on one of the five sites identified in the Waste Core strategy. Three of these sites are located within the Green Belt.

The group noted that the recent (August 2014) decision by the Secretary of State for DCLG in refusing consent for an EfW in Hertfordshire (Hatfield) was based in part on the grounds that it was a very large scale development within the Green Belt.

The Group also considered the National Planning Policy on Waste produced by the Secretary of State in October 2014 and noted that the policy reiterates the principle that Green Belts have special protection in respect to development ie that waste related developments in the Green Belt would need to demonstrate “Very Special Circumstances” Regardless of the above if Plan A fails and GCC are back to square one, a further attempt to deliver a large scale EfW facility, even taking into account the reasons why Plan A was not deliverable, would continue to be expensive, controversial and take a number of years to

conclude. This would certainly be well beyond the end of the current landfill contract ending in 2018. There would also be a significant risk that a new EfW project still might not be delivered which could put GCC in the same position but with several more years elapsed. This would risk loss of credibility and reputational damage. In addition, for the duration of this further procurement process and in the absence of other options, GCC would have to use landfill, missing an opportunity to reduce financial and environmental costs in the short term.

On the question of maximising energy efficiency, Members felt that not only should any EfW facility be "Combined Heat and Power (CHP) enabled" but the council should actively and intentionally seek outlets for heat as part of the programme as a precondition of commissioning such a plant. While this is undoubtedly the better environmental option, it would add further complexity to any future project which would be already at significant risk of stalling for the reasons stated above.

The table below sets out the pros and cons of taking an EfW proposal forward.

Option 1: Pros	**Cons**
Proven and bankable technology.	Difficult and long-winded to deliver especially in a shire county if local public opinion is set against this solution. Loss of opportunity in the meantime to reduce environmental and financial costs
As commissioners, specify degree of access to energy – which will become more valuable over time. Energy income could therefore be reserved for the Council or shared with the contractor in exchange for a more favourable gate fee.	
Potential for local CHP	No contracted CHP users at present. In the absence of existing infrastructure to distribute heat, it would take considerable co-ordination and time to negotiate and deliver even if there is a strong desire to do this. This could add further time and uncertainty to an already risky project.
Potential to offer capacity to third parties if the level of household residual waste drops locally due, for example, to higher recycling	Risk that, if there is insufficient input, the plant could run sub-optimally, increasing unit costs per tonne processed. This risk

rates or changes in economic or legislative circumstances during the lifetime of the facility.	would normally be passed to the contractor who might build in a price premium to hedge against the risk.
Provides the long term certainty of a closed loop solution (in this context meaning a complete local solution without need for further processing or treatment of waste (other than for ash residues).	Lock-in to this solution for 25 years.
If delivered, avoids further lengthy deliberation and procurement for an extended period.	The Fly ash (or APC residue) would still need to be landfilled.

Option 2 – Specify and procure a local Mechanical Treatment (MT) / Mechanical Biological Treatment (MBT)

Members noted that MT and MBT cover a wide variety of linked mechanical (to separate mixed waste into various streams) and, if required, biological (to stabilise organic material, usually through composting) processes. Members were unanimous that MBT processes that create high levels of Compost-Like Organic (CLO) material and did not aim to optimise production of a Solid Recovered Fuel (SRF) fraction should be ruled out. This accepts that after recyclables have been removed, the main product of the process will be a fuel for energy recovery that will require combustion in an Industrial Emissions Directive (formerly Waste Incineration Directive (WID)) compliant EfW facility. At present much of this material is exported but there are also existing and emerging markets for SRF in the UK.

This option would also provide an opportunity to add an Advanced Thermal Treatment (ATT) facility to utilise the SRF and produce electricity and heat locally. Such a facility could be part of the initial solution (although this would increase planning risk and build time) or be added at a later date as a "phase 2" project. Phase 2 could either be specified and provided as a facility commissioned by GCC, or offered to the market as per option 3.

It should be assumed that a phase 1 facility would be a strategic sized (ie greater than 50,000T pa throughput) facility within Gloucestershire and would require appropriate planning and Environment Agency consent. It would require a large but fairly rudimentary structure with space to tip, conveyor belts, sorting and baling equipment. The facility would require shutter doors for vehicular access, otherwise kept closed to enable the facility to operate under negative pressure. Internal air would be drawn through a low level bio-filter not usually via a stack. The main environmental impacts would be traffic movements and unless proper design and operational controls are put in place (which would in any event be

mandatory), odour. Some residue would still require landfilling, the amount depending on the extent of processing.

The table below sets out the pros and cons of taking an MT/MBT proposal forward.

Option 2: Pros	**Cons**
Simple MT/MBT is a straightforward, generally proven and bankable technology which could be built and commissioned relatively quickly.	Some more complex MBT type processes in the UK and elsewhere have been beset by operational problems.
MT/MBT may be less locally controversial than EfW.	Adding a phase 2 local thermal treatment module could be more controversial.
The option of adding thermal treatment in a second phase provides flexibility and more time to evaluate the pros and cons as the market and technology develops.	Without adding a "phase 2" local treatment facility it is not a closed loop solution (ie it processes but does not actually dispose of waste -see working definition in table 1 above).
The process produces SRF which, if of the right specification and quality, may be increasingly valuable in the future. With this solution the council retains control of the fuel. (Note: any increased value would be manifested as an avoided cost (lower gate fee) and not as income.	This approach exposes the council to variations in price of the end treatment process. This type of solution was rejected by councillors in 2006 in part because the cost of thermal treatment post MT/MBT could not be guaranteed. The market for SRF has, however developed since then.
Some additional material recovered for recycling albeit only likely to be around 2% (by reference to existing processes)	The net energy used in the system to treat and transport waste may be less energy efficient than Option 1, particularly against EfW with CHP.
The MT/MBT process will result in water evaporation losses of up to 20% which reduces the cost of onward transport and the amount requiring treatment. This also increases calorific value and hence value. The cost of transport is likely to be in the region of 40-70p per tonne per mile.	If a local thermal treatment facility is not added, GCC lose control of energy potential and future value of SRF which would probably go out of region or country. An element of residue (a mix of organic low grade composted material and inorganic fines) would still need to be landfilled.
Potential to offer capacity to third parties if the level of household residual waste drops	Risk that, if there is insufficient input, the plant could run sub-optimally if operated at

locally due for example to changes in the economy, legislation or public behaviour during the lifetime of the facility, thus generating income to offset the gate fee.	below design capacity increasing unit costs per tonne processed. This risk would however normally be passed to the contractor although there would usually be a price premium to shift this risk.
MT /MBT has *relatively* low capital costs which could be depreciated over a shorter period, maintaining future flexibility.	Adding an own phase 2 local thermal treatment process would lock the council into this solution for 20+ years
If the cost of energy increases as widely predicted, this should stimulate demand for SRF, which should reduce gate fees.	As long as there is no local phase 2 facility, there is also the risk of exposure to increases in third party treatment costs due having to send material further afield
Export markets for SRF are competitive at the moment, despite transport costs involved, with demand from CHP facilities in Germany, Holland and Sweden. Some UK outlets also exist.	Export may, due to supply and demand factors, become less competitive in a relatively few years.

Option 3 - Contract with one or more providers of existing or proposed facilities (without geographical or technological constraint) on a shorter term basis

The basis of this option is that the Council would not itself specify and procure a facility of any kind, rather leaving the choice of technology and location completely to the market. This would obviously be within the bounds of compliance with environmental regulations and, if local, within policy constraints outlined in the Waste Core Strategy. Solutions and prices could be requested on a short or long term basis, with the option to go short term or longer left to be determined through the evaluation methodology.

The principal attractions of this option are the transfer of project delivery risks to the supplier and the ability to contract on a relatively short term basis should this be affordable. This would enable the council to further review options in a few years when the market may have matured and become more competitive. The principal drawbacks are the loss of access to the energy income potential and the erosion of price benefits through added transport costs.

It may be that a hybrid of this option is attractive in combination with Option 2; with the Council procuring a phase 1 MT/MBT facility and going to the open market for the offtake of SRF either in the short or longer term. The table below sets out the pros and cons of taking this “open proposal” forward.

Option 3: Pros	**Cons**
No local planning and deliverability risk if it relies upon existing or consented / permitted facilities.	
There appears to be some capacity at facilities at regional level and others are potentially in the pipeline, albeit some notable schemes are dormant at present. The viability of such schemes in the region may improve if “anchor contract” tonnage can be secured.	There are currently no such facilities in Gloucestershire; going beyond the county will increase haulage costs by 40p – 70p per tonne per mile. This could erode or even override the cost benefits of an option 3 solution over local landfill disposal.
Letting a relatively short term contract permits a further review of options in a few years when the market may have matured and become more competitive.	Short term contracts by their very nature tend to be more expensive as the supplier would face uncertainty as to whether the input would be lost at the end of the period. The price and/or annual inflationary indices offered may reflect this risk. Alternatively a competitive price may be obtained for a short term contract if the supplier is looking for input now while taking the view that there may be a future shortage of capacity and market prices will rise in the future. There are conflicting reports as to whether the UK is heading for an under or over-supply of strategic facilities
While flexibility will be built into any of these options to accommodate increases in the recycling rate up to 70%, a short term contract may add assurance that the solution is not a barrier to higher recycling in the long term.	No share in energy income
Does not restrict potential bidders to any one type of technology or location and evaluation criteria should be fairly straightforward based on price and quality/deliverability.	A limited market study suggests the only facilities in the region with capacity currently are two MBT facilities. However after 2018 the market looks to be more open with over ten MBT/EfW facilities reporting possible capacity
Does not rule out innovative technology	

solutions - at the bidder's risk - although this is highly unlikely for a short term contract.	
Could be let in lots so that not all eggs are placed in one basket. Similarly a fixed amount (well within the target recycling rate) could be guaranteed, with a degree of flexibility on the remaining tonnage.	Multiple lots could be difficult to manage as the allocation of tonnages would have to be carefully monitored and managed by the Joint Waste Team on behalf of the Council.

12. Conclusions

This is a very complex decision process due to the high number of uncertainties involved and the developing and dynamic nature of the market. It is also a very high profile decision with reputational implications for the Council if positive progress cannot be made.

The group were clear that while it could narrow down the range of options, in the absence of market testing, it could not identify one single preferred solution at this stage. However while market testing will provide more certainty it only reduces the bounds of risk.

The Group noted that with the County Council's MTC2 position, affordability is more than ever a key criterion.

The Group also noted that continued landfill with methane extraction provides a straightforward fall-back option and financial benchmark with sufficient capacity available locally for a flexible duration. However this position could not be held indefinitely as the direction of the proposed EU review of regulation and policy points to increasing restrictions on landfill as a percentage of the total waste stream and future bans or severe limits on landfilling recyclable materials. In any event the relative cost of landfill (with continued rises in taxation) is likely to become even less competitive.

Most members of the group were of the view that if GCC were starting from scratch without the background of the UBB proposal, there would still be good reasons to look at Option 1 provided that CHP could definitely be delivered and that it did not compromise the ability to reach aspirational recycling rates. It was noted that the Secretary of State is highly likely to impose one or more new conditions if he allows the appeal.

However, if the UBB proposal is not deliverable – then the prospects of succeeding with a new proposal based on option 1 would be assessed through examination of the reasons for the rejection of the appeal and the terms of the UBB contract. Regardless of this, the group noted that starting from scratch with a further large scale EfW project (against the

background of the previous contract failing) would be controversial, expensive, long winded with a significant degree of uncertainty over deliverability. This would risk putting the council in the same position but with several more years elapsed.

The group concluded Option 2 has some attractions but MT/MBT alone is not a complete solution – an element of thermal treatment (EfW or ATT) would still be required and the advantages of pre-treating prior to energy recovery are not clear cut, depending on the cost benefit ratio of pre-treatment versus value of material. There are also technological risks as not all existing MT/MBT plants in the UK are operating smoothly. However specifying MT/MBT as a partial solution that leaves open the option of developing some form of local ATT as a "phase 2" project at a later date has attractions. The receiving/treatment MT/MBT facility would not be particularly capital intensive and might be more straightforward to obtain consent for and build. The output SRF could be exported out of county or UK initially while the benefits of bolting on a local advanced thermal treatment could be evaluated and/or revisited at a future date.

Option 2 phase 1 is likely (by reference to capital and operating costs of similar facilities) to be a relatively low cost / low risk option that enables the council to retain control of the fuel. This could, subject to all the usual caveats on deliverability risks, be delivered on a short term basis.

Option 3 which places fewer constraints on the market is attractive at a time when the market is dynamic and future policy and legislation is under review at the EU level. At present it appears that merchant capacity for MT/MBT is currently available regionally with both EfW and other MT/MBT projected to come on stream from 2018. In an immature market, these may provide value for money for early customers, albeit the cost of more haulage would be a downside.

In making a recommendation the Group wish to make it clear that neither option 2 nor option 3 are fully worked up proposals; they will require market testing and even then there can be no certainties about cost and deliverability until a full procurement process has been undertaken.

However if the UBB contract is unsuccessful, a soft market testing exercise and a procurement process for these options could be quickly mobilised.

Recommendations

The Group recommends that

1. In the event that the UBB contract fails, the Council should further explore both Option 2

phase 1 (providing local MT/MBT to manufacture SRF) and Option 3 (securing short term merchant capacity) through soft market testing.

2. The approach should take account of the key principles set out in section 8 of this report, and

3. If this work is required, it should be delegated to the Joint Waste Committee to undertake and make further recommendations to the County Council within an agreed timescale.

List of Appendices

A. Terms of Reference for the Group
B. Background info presented to the group
C. Map of WCA services
D. Glossary of acronyms and terms

List Relevant Links

Joint Municipal Waste Management Strategy: www.recycleforgloucestershire.com

Defra Guide to Waste Disposal Options:
https://www.gov.uk/government/publications/energy-from-waste-a-guide-to-the-debate

Wrap Gate Fees Report:
http://www.wrap.org.uk/content/wrap-annual-gate-fees-report

Appendix A

Residual Waste Working Group: Fallback Strategy
Terms of Reference

Summary

The county council has a legally binding contract with Urbaser Balfour Beatty (UBB) for the treatment of Gloucestershire's residual waste. As identified by the county council and in line with best practice, a fallback strategy should be developed in the event the residual waste solution proposed by UBB cannot be delivered.

Background

In February 2013, the residual waste contract for the delivery of an energy from waste (EfW) facility was signed by the county council with UBB. Their planning application for an energy from waste (EfW) facility at Javelin Park was refused by the county council's planning committee in March 2013. In May 2013 the Environment Agency issued the environmental permit for the operation of the EfW facility at Javelin Park. On 18 June 2013 UBB submitted a planning appeal to the Secretary of State. The start date of the planning inquiry is 19 November 2013; this is programmed to run for five weeks until 28 January 2014. It is anticipated that the outcome of this will not be known until mid to late 2014.

As part of the county council's robust strategic planning, we are seeking to develop a fallback strategy in the event that the contract with UBB fails.

> *"This Council should immediately establish a 'Plan B' cross-party working group to consider alternatives to the current proposals for a waste incinerator at Javelin Park, to be made available in the event that the Council's current contract proposal with UBB ultimately fails" (Council Motion, 15 May 2013).*

Purpose

As resolved by the county council, this working group, will advise the county council on the approach to managing Gloucestershire's residual waste and in turn the fallback strategy in the event that the residual waste contract with UBB to deliver energy from waste at Javelin Park, fails. It is important that the group has time to reach a fully considered and balanced position on the options for this strategy. Accordingly, all matters relating to waste in Gloucestershire and the development of an effective and economic fallback strategy should be within the scope of the work of this group. To this end the group will:

- Be supported by officers from the Residual Waste team, the Joint Waste Team, Waste Planning and Democratic Services;
- be provided with comprehensive information relating to waste in Gloucestershire
- be provided with potential ways of delivering affordable solutions to meet our waste needs; and
- be given as much time as necessary to fully understand all the issues.

The group exists in an advisory capacity and does not have decision making powers. The group will need to ensure that due caution is applied so that the scope of the group's work and its governance arrangements do not prejudice the current residual waste contract with UBB, their planning appeal, or indeed prejudice any future procurement.

Scope of the Working Group

The scope of the working group will include:

- To understand the European and UK legislation and policy in relation to the management and treatment of municipal waste and climate change.
- To understand the waste challenge in Gloucestershire, the roles and responsibilities of the seven local waste authorities and the differences between municipal, commercial and industrial waste.
- To understand the waste management strategy for reduction, re-use, recycling and recovery including local authorities' current service, future plans and targets.
- To understand the content and context of the Gloucestershire Waste Core Strategy including how the strategic sites were established, and the disposal of waste out of county.
- To understand the technology options available to manage Gloucestershire's residual waste:
    - Review and consider all technology options available to manage and treat residual waste that can offer an affordable and deliverable solution for Gloucestershire.
    - Consider risks and costs associated with different technologies including markets for the residues from processing and material classification for onward treatment or disposal.
- To review best practice and experience of other authorities and countries.
- To understand procurement rules and options, contract structure, risk transfer and value for money.
- To understand all of the factors that need to be considered when developing a fallback strategy.

Outside of Scope

As determined by the resolution of the county council, the scope of the group's work is specifically to "…*consider alternatives to the current proposals for a waste incinerator at Javelin Park*…" and make its conclusions "…*available in the event that the council's current contract proposal with UBB ultimately fails.*" (Council Motion, 15th May 2013)

Therefore, all matters related to the contract between UBB and the county council, and UBB's planning application and appeal to the secretary of state, are out of scope of the working group.

Outcomes

To make recommendations for a fallback strategy to dispose of Gloucestershire's residual household waste in the event that the contract with UBB fails.

Membership, and governance arrangements

Membership of the group will comprise:

Group affiliation	**Name**
2 Conservative county councillors	Tim Harman, Patrick Molyneux
2 Liberal Democrat county councillors	Simon Wheeler, Bill Whelan
2 Labour county councillors	Tracy Millard, Brian Oosthuysen
1 UKIP county councillor	Alan Preest
1 Independent* county councillor	Sarah Lunnon

* The group noted that this should have read 1 Green county councillor

Appendix B

Background information presented to the RWWG

The RWWG has been given a number of presentations by both GCC officers and external organisations on the following:

Meeting 1 (Sept 13):

- Introduction and context setting - Duncan Jordan, Chief Operating Officer

Meeting 2 (Oct 13):

- report on the consequences for the residual waste contract should the planning appeal succeed or fail - Lisa Pritchard, Deputy Project Lead, Waste Disposal Authority
- Waste challenge: legislation and policy – Steve Read, Head of Service, Joint Waste Team

Meeting 3 (November 2013):

- Waste strategy and current performance – Tony Childs, Waste Services Manager, Joint Waste Team

Meeting 4 (December 2013):

- Paper on waste management performance in Europe – Joint Waste Team
- Waste planning policy and the development plan for Gloucestershire – Kevin Phillips, Team Leader, Minerals and Waste Planning Policy

Meeting 5 (January 2014):

- Waste planning policy and the development plan for Gloucestershire - Waste Core Strategy – Kevin Phillips, Team Leader, Minerals and Waste Planning Policy
- Technology options - Lisa Pritchard, Deputy Project Lead, Waste Disposal Authority

Meeting 6 (February 2014)

- *Workshop facilitated by Duncan Jordan*

Meeting 7 (April 2014):

- What are the options - GlosVAIN presentation
- Out of county capacity - Tony Childs, Waste Services Manager, Joint Waste Team

Meeting 8 (May 2014):

- Commercial risks of waste management – Ian Mawdsley, Project Lead, Waste Disposal Authority

Meeting 9 (Jun 2014):

- Gloucestershire residual waste options – Dr Daryl Hill, WIDP/Environment and Energy Ltd

Meeting 10 (July 2014):

- Discussion of emerging options and preferred options and Draft report

Meeting 11 (Aug 2014):

- Presentation from Tom Jarman, Director, Bio Centre (resulting from his request to GCC's Chief Executive to present to the group). *Please note that Tom Jarman should not be confused with Cllr Tim Harman, who is a member of the group.*
- Review of Gate Fees for various processes with reference to WRAP Gate Fees Report
- Consideration of first draft of Options and Recommendations.

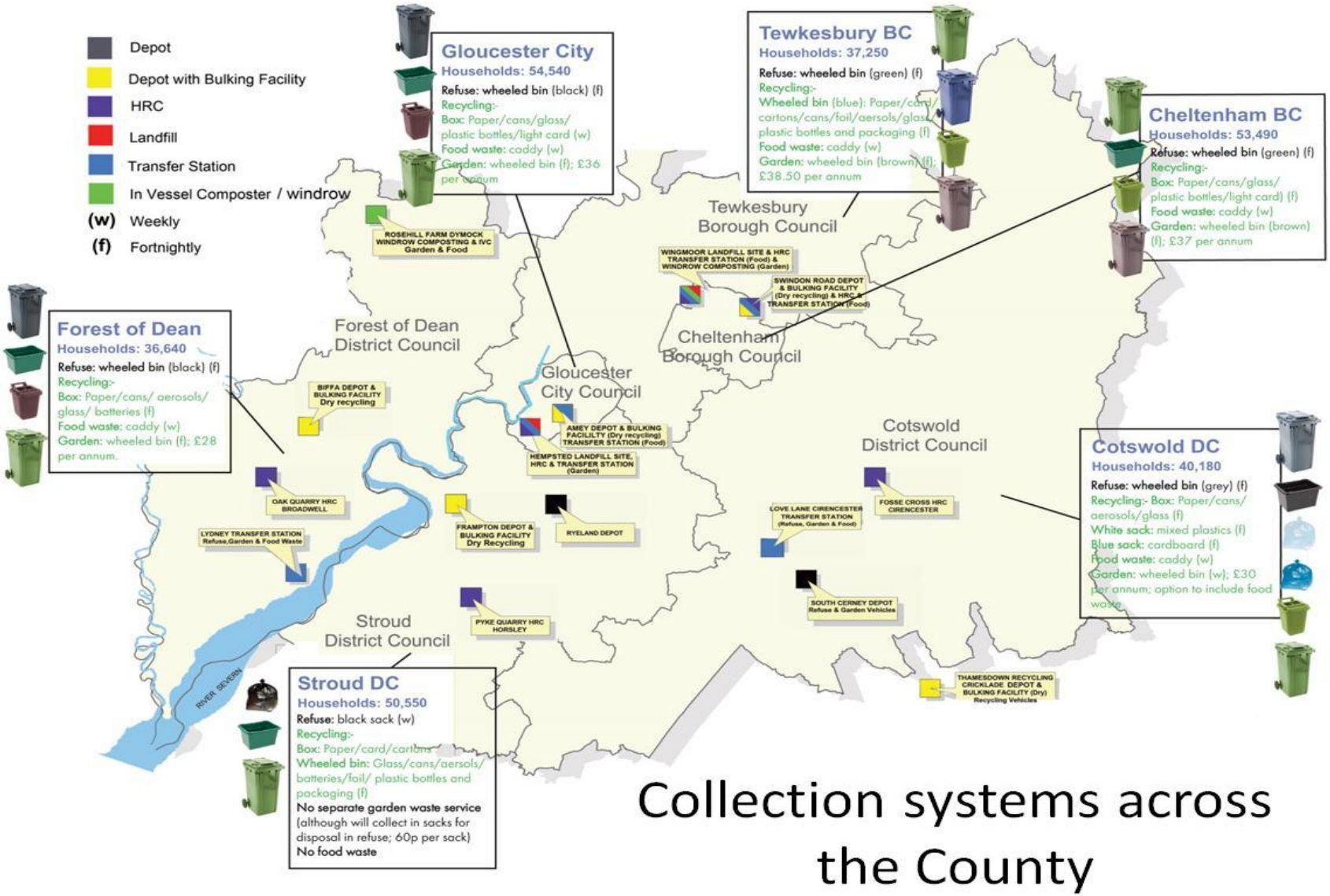
Meeting 12 (October 2014):

- Noted the Secretary of State (SoS) had postponed his decision on the UBB planning appeal to on or before 30th November
- Noted the County Council's resolution on Motion 720
- Received a brief update on the implications of the Secretary of State's decision to refuse planning consent for an EfW facility in Hertfordshire.
  Considered the Full Draft Report.

Meeting 13 (November 2014):

- Noted the Secretary of State (SoS) had further postponed his decision on the UBB planning appeal to on or before 22nd December 2014
- Noted the National Planning Policy for Waste (NPPW) had been published by DCLG in October 2014
- Confirmed support for the draft Report as circulated after meeting 12, subject to minor amendments reflecting the 13th meeting and insertion of a paragraph (Section 11 – under Option 1) referencing the NPPW.

Appendix C- The range of collection services in Gloucestershire



Appendix D – Glossary of Acronyms and Terms

APC	Air Pollution Control	In the context of this report, the mechanisms to remove pollutants from the exhaust gas of an EfW or ATT process so that emissions are minimised and, as a minimum, comply with Emission regulations (see WID below). "APC residue" is the solid material (in the form of fine "fly ash") captured in the process.
ATT	Advanced thermal Treatment	A form of Energy from Waste involving gasification and pyrolysis rather than conventional incineration. ATT involves an interim step in the combustion process such as creation of a "syngas" which helps to burn the fuel more efficiently and reduce emissions. ATT plants require residual waste to be pre-processed into SRF.
	Autoclave	A form of MT which involves large scale pressure cooking of waste to separate the various fractions for further treatment.
BMW	Biodegradable Municipal Waste	The organic fraction of MSW which would decompose to produce methane if placed in landfill.
CHP	Combined Heat and Power	Use of fuel to provide energy in the form of electricity and export of surplus heat for use in another process/industry or for a district heating main. CHP is significantly more energy efficient than EfW alone.
CLO	Compost-like Output	The organic fraction from MBT which can be composted to form a stable material. This has some characteristics of commercial or home compost but use is highly restricted due to a high level of heavy metals and other persistent contaminants. This comes from the presence of things like batteries, paints and mineral oils in MSW.
DCLG	Department of Communities and Local Government	The UK Government department responsible for determining the outcome of the appeal against refusal of planning consent for the UBB facility.
Defra	Department of Environment, Food and Rural Affairs	The UK Government department responsible for waste policy in the UK.
EfW	Energy from Waste	A term which is usually used in a specific sense – shorthand for incineration with energy recovery. It can be used generically for all types of thermal treatment of waste which generates energy. EfW plants generally do not require residual waste to be pre-treated. They are usually built to be able to provide heat as well as electricity (CHP)

		regardless of whether a heat user is available at the time of construction
EU	European Union	
GCC	Gloucestershire County Council	GCC has two, separated, roles in the provision of waste infrastructure. As Waste Disposal Authority (WDA) is it responsible for commissioning facilities to meet JMWMS objectives. As a Waste Planning Authority (WPA) it is responsible for producing a Waste Core Strategy (WCS) and determining planning applications for waste facilities. These functions must be exercised via separate governance and decision making processes within GCC.
GWP	Gloucestershire Waste Partnership	A partnership between the seven Gloucestershire waste authorities responsible for drawing up the JMWMS
JMWMS	Joint Municipal Waste Management Strategy	Developed and adopted by all seven waste collection and disposal authorities in Gloucestershire, the JMWMS sets out how the county's MSW will be managed in Gloucestershire up to 2020. Link to JMWMS
JWC	Joint Waste Committee	A formal Joint Committee formed in 2013 to oversee strategic and operational waste functions for four out of six waste collection authorities in Gloucestershire and GCC
JWT	Joint Waste Team	An officer team accountable to the JWC. The JWT officers have not been involved in delivery of Plan A and were asked by GCC, through the JWC, to assist the RWWG.
MBT	Mechanical Biological Treatment	A process in which black bag type waste is shredded, screened and graded using various techniques including magnetism. In MBT the fine fraction, having a high organic content, is then composted or digested. With metals and inorganic fractions such as grit removed, the remaining material has a high calorific content and is used as a fuel (see RDF and SRF).
MSW	Municipal Solid Waste	Household and household-like waste from local businesses collected by councils via kerbside and household recycling centres.
MT	Mechanical Treatment	A process in which black bag type waste is shredded, screened and separated. Unlike MBT, the organic material is not separated and is included as part of the fuel. Drying is often incorporated to reduce weight and boost the calorific value (see RDF and SRF).
MTC2	Meeting the Challenge 2	GCC's Medium Term Financial Strategy which seeks to balance and resolve demands for service provision with the council's diminishing overall financial resources.

PFI	Private Finance Initiative	A means of funding public infrastructure projects with private capital through public–private partnerships.
Plan A		A term used by GCC in the setting up of the RWWG referring to the proposed delivery, by UBB, of an energy from waste facility located at Javelin Park to deal with Gloucestershire's household residual waste.
Plan B		A term used by GCC in the setting up of the RWWG meaning a plan to be put forward by the RWWG outlining potential alternatives to the UBB proposals, to be made available in the event that Plan A cannot be delivered.
	Plasma arc	Shorthand for a form of ATT under development but not commercially available.
RDF	Refuse Derived Fuel	A solid fuel prepared from non-hazardous waste to be utilised for energy recovery which may or may not conform to an internationally agreed standard. See also SRF.
RWWG	Residual Waste Working Group	A cross-party group set up by GCC in May 2013 tasked to bring a recommendation to GCC on a fall back strategy ("Plan B") should the Council's contract with UBB ("Plan A") fail.
SRF	Solid Recovered Fuel	A solid fuel prepared from non-hazardous waste to be utilised for energy recovery which meets a defined European Standard. See also RDF.
UBB	Urbaser Balfour Beatty	The consortia awarded a contract in 2013 to deliver a service to manage Gloucestershire's municipal residual waste, including an energy from waste facility located at Javelin Park
WID	Waste Incineration Directive	A term still widely used, although now part of the Industrial Emissions Directive 2010, referring to the overarching EU legislation seeking to achieve a high level of environmental and human health protection by requiring the setting and maintaining of stringent operational conditions, technical requirements and emission limit values pertinent to EfW and ATT plants.
WCS	Waste Core Strategy	Sets out Gloucestershire's infrastructure planning framework for waste management facilities until 2027/28. It is used by GCC to help make decisions about planning applications for waste management facilities.
WDA	Waste Disposal Authority	See GCC
WIDP	Waste Infrastructure	A team set up by Defra to provide advice and assistance to local authorities in the commissioning of major waste

	Development Programme	infrastructure.
WPA	Waste Planning Authority	See GCC
WRAP	Waste & Resources Action programme	A body set up by DEFRA in 2000 to help recycling take off in the UK and to create markets for recyclable materials. http://www.wrap.org.uk/