York and North Yorkshire Waste Management Partnership

Waste PFI Project Outline Business Case

September 2006

I ERNST & YOUNG

Ernst & Young LLP statement

In accordance with our Agreement dated 15 December 2004, we have collated and assisted in the preparation of an Outline Business Case in support of North Yorkshire County Council and City of York Council's ("the Councils") application for Private Finance Initiative credits.

Purpose of our report and restrictions on its use

This Outline Business Case has been collated and prepared solely for the purpose of submission to the Department for Environment, Food and Rural Affairs ("Defra") and should not be relied upon for any other purpose. In carrying out our work and collating the report, we have worked solely on the instructions of the Councils.

Scope of our work

The scope of our work has been to collate and assist in the preparation of an Outline Business Case to support the preferred option for submission to Defra. This has included:

- The development of a PFI Tariff model to forecast the costs of the project to the Councils under a private sector funded solution;
- Performing value for money analysis to compare the private sector funded solution against the Public Sector Comparator;
- An assessment of the PFI Credit for the project and related Revenue Support Grant; and
- An initial accounting treatment assessment for the project.

Ernst & Young is responsible only for these elements and shall have no responsibility for the other aspects of the Outline Business Case. In preparing these aspects of the Outline Business case, we have relied on cost and waste data provided by the Councils. We have not sought to verify the accuracy of this data or the information and explanations provided by the Councils nor has Ernst & Young carried out any audit on this information included in the Outline Business Case. Accordingly, Ernst & Young LLP accepts no responsibility or liability to you in relation to the report (other than for those elements referred to above).

In addition, the report may not have considered issues relevant to any third parties. Accordingly, any use any such third party may choose to make of the report is entirely at their own risk and we accept no responsibility to liability to any such third parties for any such use.

The following abbre	eviations are used in this report:
4ps	Public Private Partnerships Programme
AD	Anaerobic Digestion
BMW	Biodegradable Municipal Waste
BPEO	Best Practicable Environmental Option
BC	Borough Council
BVPIs	Best Value Performance Indicators
Capex	Capital Expenditure
CCT	Compulsory Competitive Tendering
CFT	Call for Final Tenders
CHP	Combined Heat and Power
City Council	City of York Council
CNEA	Clean Neighbourhoods and Environmental Act
Councils	North Yorkshire County Council and City of York Council
County Council	North Yorkshire County Council
County Council CPI	North Yorkshire County Council Consumer Price Index
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CPI	Consumer Price Index
CPI DCLG	Consumer Price Index Department for Communities and Local Government
CPI DCLG Defra	Consumer Price Index Department for Communities and Local Government Department for Environment, Food and Rural Affairs
CPI DCLG Defra DBFO	Consumer Price Index Department for Communities and Local Government Department for Environment, Food and Rural Affairs Design, Build, Finance and Operate
CPI DCLG Defra DBFO DC	Consumer Price Index Department for Communities and Local Government Department for Environment, Food and Rural Affairs Design, Build, Finance and Operate District Council
CPI DCLG Defra DBFO DC DPD	Consumer Price Index Department for Communities and Local Government Department for Environment, Food and Rural Affairs Design, Build, Finance and Operate District Council Development Plan Document
CPI DCLG Defra DBFO DC DPD DLO	Consumer Price Index Department for Communities and Local Government Department for Environment, Food and Rural Affairs Design, Build, Finance and Operate District Council Development Plan Document Direct Labour Organisation
CPI DCLG Defra DBFO DC DPD DLO DSO	Consumer Price Index Department for Communities and Local Government Department for Environment, Food and Rural Affairs Design, Build, Finance and Operate District Council Development Plan Document Direct Labour Organisation Direct Service Organisation
CPI DCLG Defra DBFO DC DC DPD DLO DSO EIA	Consumer Price Index Department for Communities and Local Government Department for Environment, Food and Rural Affairs Design, Build, Finance and Operate District Council Development Plan Document Direct Labour Organisation Direct Service Organisation Environmental Impact Assessment
CPI DCLG Defra DBFO DC DPD DLO DSO EIA EiP	Consumer Price Index Department for Communities and Local Government Department for Environment, Food and Rural Affairs Design, Build, Finance and Operate District Council Development Plan Document Direct Labour Organisation Direct Service Organisation Environmental Impact Assessment Examination in public

Eol	Expression of Interest
EPA	Environmental Protection Act 1990
EU	European Union
EWC	Environmental Waste Controls Ltd
FBC	Full Business Case
Guidance	HM Treasury Value for Money Assessment Guidance
HWMS	Household Waste Management Strategy
HWRC	Household Waste Recycling Centres
IAA	Inter Authority Agreement
IRR	Internal Rate of Return
ISDS	Invitation to Submit of Detailed Solutions
ISOS	Invitation to Submit Outline Solution
ITPD	Invitation Participate in Dialogue
JMEMDAG	Joint Members Decision and Advisory Group
JMWMS	Joint Municipal Waste Management Strategy
JWA	Joint Working Agreement
KPI	Key Performance Indicator
IVC	In-Vessel Composting
LATS	Landfill Allowance Trading Scheme
LAWDC	Local Authority Waste Disposal Company
LDF	Local Development Frameworks
LDS	Local Development Scheme
LG(C)A	Local Government (Contracts) Act 1997
LGA	Local Government Act 1997
LPSA	Local Public Service Agreement
MEL	Management Evaluation Learning Research Limited
MCC	Market Capacity Constraint
MBT	Mechanical Biological Treatment

MEMJAG	Members Joint Advisory Group
MMC	Market Capacity Constraint
MoU	Memorandum of Understanding
MRF	Materials Recovery Facility
MSW	Municipal Solid Waste
MTFS	Medium Term Financial Strategy
MWMF	Municipal Waste Management Framework
MWMS	Municipal Waste Management Strategy
NWC	National Waste Composition
NPC	Net Present Cost
NYMWDF	North Yorkshire Minerals and Waste Development Framework
OBC	Outline Business Case
ODPM	Office of the Deputy Prime Minister
OGC	Office of Government Commerce
OJEU	Official Journal of the European Union
Opex	Operating Expenditure
Partnership	York and North Yorkshire Waste Management Partnership
PFI	Private Finance Initiative
PPP	Public Private Partnership
PPS	Planning Policy Statement
PQQ	Pre-Qualification Questionnaire
PRG	Project Review Group
PSC	Public Sector Comparator
RDF	Refuse Derived Fuel
Reference Case	The residual waste treatment services which are proposed to be procured using the PFI
Reference Project	Transfer, recycling, composting, the treatment of residual waste and landfill disposal services.
ROCs	Renewable Obligation Certificates

RSG	Revenue Support Grant
SDP	Service Delivery Plan
SLA	Service Level Agreement
SOAP	Statement Of Agreed Principles
SoPC 3	Standardisation of PFI Contract version 3
SPV	Special Purpose Vehicle
SRF	Solid Recovered Fuel
SSSI	Site of Special Scientific Interest
SU2003	The Strategy Unit Report 2003
tpa	tonnes per annum
Treasury model	PFI Value for Money Quantitative Assessment generic model
TUPE	Transfer of Undertakings (Protection of Employment) Regulations 1981
TUPE	
	1981
UA	1981 Unitary Authority
UA VfM	1981 Unitary Authority Value for Money
UA VfM WCA	1981 Unitary Authority Value for Money Waste Collection Authority
UA VfM WCA WDA	1981 Unitary Authority Value for Money Waste Collection Authority Waste Disposal Authority
UA VfM WCA WDA WET Act	1981 Unitary Authority Value for Money Waste Collection Authority Waste Disposal Authority Waste and Emissions Trading Act
UA VfM WCA WDA WET Act WLP	1981 Unitary Authority Value for Money Waste Collection Authority Waste Disposal Authority Waste and Emissions Trading Act Waste Local Plan
UA VfM WCA WDA WET Act WLP WREN	1981 Unitary Authority Value for Money Waste Collection Authority Waste Disposal Authority Waste and Emissions Trading Act Waste Local Plan Waste Recycling Environmental Trust

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1.1 Introduction

This document presents the North Yorkshire County Council ("the County Council") and City of York Council ("the City Council") (together "the Councils") Outline Business Case ("OBC") for investment in waste management services in North Yorkshire, on behalf of the York and North Yorkshire WMP ("the Partnership"). Whilst this is a joint procurement between the Councils, the contracting and decision-making arrangements have been clearly defined, with North Yorkshire County Council acting as the lead authority, and hence single contracting entity, for the procurement.

The Reference Project

The Reference Project encompasses the services associated with managing municipal waste including transfer, recycling, composting, the treatment of residual waste (recovery) and landfill disposal, but not collection, and will be procured and delivered through a number of separate service contracts. Waste collection is to remain the responsibility of District Councils and the City Council. The Reference Project is a solution which satisfies the aims and objectives of the JMWMS, rather than a specification for future delivery of the service and is not necessarily the solution which will be delivered by the procurement.

The strategic aims and objectives of the Reference Project are to:

- Meet waste reduction targets across the Partnership area;
- Meet/exceed recycling and composting targets;
- Reduce the amount of waste sent to landfill (i.e. meet diversion targets);
- Show preference for the treatment of residual waste using a combination of thermal and biological processes;
- Realise the value of waste as a natural resource; and
- Secure capacity for dealing with the projected waste levels.

These aims and objectives complement the objectives and targets of the Joint Municipal Waste Management Strategy ("JMWMS"). The Partnership consider these strategic aims and objectives are specific, measurable, agreed, realistic and timely, and may be implemented within the proposed timetable. The project objectives fit with the outcomes of Best Value and Strategic service reviews.

Whilst this OBC covers the ability of the Reference Project to achieve the JMWMS, the document sets out the Councils' application for Private Finance Initiative ("PFI") credits for the joint procurement of the Recovery Contract ('Reference Case') that is proposed to be awarded under the PFI. The Reference Case infrastructure comprises a Mechanical Biological Treatment ("MBT") facility and an Energy from Waste ("EFW") facility.

The proposed Reference Project has been fully consulted on, is consistent with the objectives set out in the JMWMS and is ultimately designed to exceed the Councils' known statutory obligations for recycling, and diversion under the Landfill Allowance Trading Scheme ("LATS"). A summary of projected performance under the Reference Project compared to national and local targets is given below:

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Table 1.1 Reference	Project	performance	compared	with	JMWMS	and	Waste
Strategy 2000 targets	-	-	-				

	2009/10	2014/15	2019/20				
Recycling and Composting							
Reference Project	35.6%	46.3%	46.3%				
(using 2005/06 data and National Waste Composition analysis)							
JMWMS	40%	45%	50%				
Waste Strategy 2000 targets	30%	33%	33%				
BMW Landfill Divers	sion						
Reference Project	34.0%	76.6%	76.6%				
(using 2005/06 data and National Waste Composition analysis)							
JMWMS	-	75%	75%				

Waste composition is clearly an important factor in the deliverability of future targets and obligations. Table 1.1 indicates the recycling and BMW landfill diversion rates which the Reference Project could achieve if the Council's latest 'actual' waste composition figures for 2005/06 were combined with the National Waste Composition ("NWC"), which compare favourably with both the JMWMS and Waste Strategy 2000 targets.

Indications are that the outcome of the waste analysis previously undertaken on waste within York and North Yorkshire (which was used for the Reference Project) underestimates the proportion of waste available for recycling and composting. The Partnership therefore believes that the waste composition data analysis currently being undertaken will provide evidence that an overall recycling rate of 50% by 2020, in line with the JMWMS, is achievable.

Further options and actions will be pursued by the Partnership to improve performance against joint targets. These include:

 Recycle greater amounts of bottom ash - the Reference Project currently assumes that 0% of bottom ash will be recycled. Increasing this amount to 100% will improve the overall proportion of waste diverted to 83.3% (using 2005/6 and NWC analysis data); and

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Increase and properly account for, the role of the community and voluntary sector in recycling and composting – charities and community groups currently recycle or compost approximately 2,222 tonnes per annum of household waste. The JMWMS identifies the importance of increasing the role of this sector although the relevant increase in performance has not been accounted for within the waste flow model. Recycling and composting within the community and voluntary sectors will provide a key opportunity to the Partnership to improve overall performance and achieve its long term targets.

The Reference Project model has provided a projection of the Councils' LATS position from 2008, over a 25-year period. Whilst the Reference Project is projected to meet the longer-term LATS targets, the realistic timeframe adopted for the Reference Case infrastructure becoming operational is critical because it results in the Councils not meeting their LATS obligations prior to 2013. In view of this, the Councils have developed a LATS strategy which includes a range of measures to mitigate the impact of its LATS exposure including:

- Managing waste volumes by improved waste minimisation;
- Commercial waste minimisation and preferential pricing mechanisms to encourage schemes that facilitate bio-diversion from landfill;
- Trading (buying) allowances;
- Bringing forward recycling plans; and
- Considering and implementing interim bio-diversion/treatment proposals.

The project will place a significant financial burden on the Councils, requiring investment in new infrastructure and ongoing increases in operating expenditure. PFI Credits of £65m are required to assist in mitigating this impact. The project has the full support of the Partnership, which comprises the City Council (a Unitary Authority), the County Council as the Waste Disposal Authority ("WDA") and the District and Borough Councils as the Waste Collection Authorities ("WCAs).

1.2 Strategic context

1.2.1 North Yorkshire

North Yorkshire is England's largest County and is home to around 576,000 people in an area covering about 2 million acres. The population is rapidly growing – it increased by 0.5 per cent per year between 1991 and 2001. At only 0.7 persons per hectare, the County is one of the most sparsely populated areas in England. The County Council was responsible for the management of 384,620 tonnes of municipal waste in 2005/06, achieving a recycling rate of 31.2%. The County Council area is two tier with 5 Districts – Craven, Hambleton, Richmondshire, Ryedale and Selby, and 2 Boroughs – Harrogate and Scarborough, who are responsible for the collection of the majority of Municipal Solid Waste ("MSW").

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1.2.2 City of York

The City Council is a Unitary Authority ("UA") in the north of England covering approximately 27,200 hectares with a population of around 185,000 (expected to rise by 4.2% between 2001 - 2011). Population density in York averages 670 people per square mile compared to an average of 323 in the region and 380 for England. The majority of the population resides within the urban area, the remaining being located in the numerous villages surrounding the City. The City is divided into 22 administrative Wards. The City Council as a UA, has responsibility for both the collection and disposal of waste, and in 2005/06 managed 120,870 tonnes of municipal waste and achieved 24.1% recycling, providing services to 81,217 households in the City of York area.

1.2.3 York and North Yorkshire Waste Partnership

The County Council, its 7 District and Borough councils and the City Council have worked together to develop waste management services across North Yorkshire since the Partnership was formed in 1999. The Partnership has a track record of achievement, including the development and adoption of a JMWMS in 2002. This partnering arrangement is engendered through a Statement of Agreed Principles ("SOAP"), which is being further strengthened through the joint development of Service Level Agreements ("SLAS") between the County Council and each WCA. The WCAs fully support the proposed procurement and are represented at Project Team meetings.

1.2.4 Joint Municipal Waste Management Strategy

The JMWMS between the Partnership was agreed and adopted in 2002. However, the Partnership recognised the need to ensure that the existing Strategy reflected the increasing integration of waste management services across the County and impending legislation. In view of this, a revised Joint Strategy has been developed which was informed by a Best Practical Environmental Option ("BPEO") analysis, together with consultation and stakeholder dialogue, to produce a common set of objectives and targets for the period to 2020 as set out in Section 1.1. The revised JMWMS was adopted in July 2006.

1.2.5 Public consultation

The Councils have undertaken a number of consultations with stakeholders to provide information and seek feedback on its proposals for the development of waste management services across North Yorkshire. The County Council carried out an extensive consultation in 2004, through a Citizen's panel, to confirm the Partnership's vision and objectives. The City Council has also undertaken consultations at a local level for the same purpose. Additionally, consultation was undertaken by both the Councils on the revised JMWMS with the public. The results of this exercise indicated strong agreement with the proposed JMWMS and the proposed approach to managing waste within North Yorkshire. In addition, there was a majority support for the Reference Case adoption of combined technologies for the treatment of residual waste.

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1.3 Analysis of existing service provision

1.3.1 Analysis of waste arisings

In 2005/06, around 426,000 tonnes of household waste was produced in North Yorkshire. The annual percentage increase in waste growth peaked in 2001/02, as shown in table 1.2 below.

Description	Authority	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06
Total amount	City Council	93,020	96,860	98,870	98,610	100,670	97,560
of household waste (tonnes)	County Council	311,942	327,537	327,821	327,448	335,911	328,750
(tonnes)	TOTAL	404,962	424,397	426,691	426,058	436,581	426,310
Combined Growth Rates %		3.17	4.8	0.54	(0.15)	2.47	(3.59)

Table 1.2 Growth of household waste¹ in North Yorkshire

From this it can be seen that waste growth for North Yorkshire and the City of York between 2000 and 2005 was *circa 1% per annum*. Although the figure for 2005/06 shows negative waste growth, the Councils do not view this as being sustainable, particularly given the Councils prudent assessment of population growth, and have therefore incorporated a reducing scale of waste growth (2% to 2008, 1% to 2012 and 0% from 2013) into their models for future waste services. This allows for the anticipated growth in population. However, the reduction in waste arisings demonstrates the success to date which the Councils have achieved in reducing the waste as a result of the initiatives undertaken. Based on these trends, future planned waste minimisation campaigns, coupled with the work which will be required of the recycling, composting and recovery contractors; it is considered that growth rates will decrease over the contract period to 0% from 2012/13 onwards.

1.3.2 Collection arrangements

Residual waste collections are made by Direct Labour/Service Organisations ("DLO/DSOs"), with the exception of Selby District Council ("DC") who contract out their service. Recycling collections are carried out either by the DLO/DSOs or by a private sector provider. Discussions with the District Councils have indicated that the majority of North Yorkshire households will move to a three stream collection service of green garden waste, dry recyclate and residual waste during the period of the project, whilst the City of York is reviewing its waste collection arrangements over the next 3 years.

¹ Please note that household waste is total municipal waste less commercial and building and construction waste.

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1.3.3 Contractual arrangements

The County Council has recently tendered a 10-year contract to provide disposal points for landfill/composting, elements of which have been won by Yorwaste Limited ("Yorwaste") and Waste Recycling Group Limited ("WRG"). It recently let three twoyear Household Waste Recycling Centre ("HWRC") contracts, the largest of which was won by Environmental Waste Controls Limited ("EWC"), with Yorwaste winning the others. The City Council is now in the process of tendering a 15 year landfill/composting/dry recycling contract. It has recently tendered a 10 year HWRC contract won by Yorwaste. The District and Borough Councils also have a number of contracts in place with Yorwaste.

1.3.4 Current infrastructure

The City Council owns the freehold of Harewood Whin landfill site and 3 HWRCs, all of which are leased to Yorwaste for operation. The County Council owns the freehold of Seamer Carr landfill site (leased to Yorwaste) and 14 HWRCs. It also leases land for 6 HWRCs from landowners. The management of HWRCs is contracted to EWC (17 sites) and Yorwaste (3 sites). Significant investment is currently being made by the City Council to upgrade and replace existing HWRCs. Yorwaste also own and operate two Materials Recovery Facility ("MRFs") (at Scarborough and Hessay), a transfer station at Tancred and a HWRC at Seamer Carr.

However the existing infrastructure is insufficient to meet the recycling and diversion targets set for the Councils.

1.3.5 **Performance of existing services**

The performance of both Councils against Best Value Performance Indicators ("BVPI") 82a and b has improved steadily over the past four years. In 2005/6 the County Council and City Council achieved recycling rates of 31.2% and 24.1% respectively compared with 21.7% and 17.8% in 2004/05. Despite a steady increase, the recycling rates across the Partnership still fall short of the long-term 2020 target of 50% set out in the JMWMS detailed in Section 2.3 of this OBC. In order to address this shortfall, the Partnership members are working closely together to develop coordinated and integrated plans for the future.

1.3.6 Service costs

The existing 2006/07 waste management budgets for the County Council and City Council were £14,856,000 and £4,247,000 respectively. These revenue budgets have increased by 46% and 25% respectively from 2002/03 which is significantly in excess of inflation. This reflects the priority of waste management for the Councils as initiatives have been implemented to encourage waste reduction and recycling (including the expansion and improvement of HWRCs). The budgets have also been increased to accommodate Landfill Tax and contract costs.

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1.3.7 Local Authority Waste Disposal Company – Yorwaste Ltd

The City Council (22.27%) and County Council (77.73%) jointly own a Local Authority Waste Disposal Company ("LAWDC") called Yorwaste Limited. It was established in 1993 as a response to the requirements of the Environmental Protection Act 1990 ("EPA"). Yorwaste deals with approximately 75% of the County Council's waste for disposal and 100% of the City Council's waste.

It provides collection services for some recyclable materials on behalf of WCAs; waste and recycling collections to private sector companies; and services to the Councils. These include the provision, operation and management of HWRCs, operation of transfer stations, haulage of wastes, windrow composting operations and operating landfill sites across the City and County area. In addition, Yorwaste is also involved in developing a treatment technology (in partnership with other companies) under the Department for Environment, Food and Rural Affairs ("Defra") New Technologies Demonstrator Programme.

1.4 **Options appraisal**

In order to meet the JMWMS targets and objectives and develop the required waste infrastructure in north Yorkshire, the Councils determined that the scope of services to be included within its Reference Project should comprise transfer, recycling, composting, the treatment of residual waste and landfill disposal. The option of including collection services with the Reference Project was considered by the Councils who concluded that on Best Value grounds, collection arrangements should continue to be provided and procured under the existing arrangements, which will complement the private sector's skills in developing and managing recycling, treatment and disposal facilities and services.

In order to assist with the determination of the Reference Project (for the waste management service) and Reference Case (for residual waste treatment services to be procured under the PFI), the Councils have each undertaken extensive BPEO analysis, which has been further refined through a joint procurement options study and subsequent risk assessments. This process identified the preferred solution which best meets both Councils' appetite for risk and the objectives of the Partnership.

Alongside this process, a range of contract packaging and funding options have been considered to inform the Councils' procurement strategy. This evaluation considered the provision of services on both a semi-integrated and disaggregated basis, funded using the PFI, PPP and Prudential Borrowing.

BPEO

As part of the development of the joint procurement strategy, a BPEO assessment for MSW arising in North Yorkshire and York was jointly commissioned by the Councils in June 2004. The BPEO assessment considered (which was subject to stakeholder and public consultation at workshops held during November 2004) a range of technology options, which were assessed against pre-agreed criteria and which addressed environmental, socio-economic and operational impacts. A total of 11 integrated waste management options were assessed for North Yorkshire and 7 for the City of York.

The performance of each of the options was assessed against different weight sets and the BPEO identified for each authority. For York, the BPEO assessment identified a single MBT plant (Option 5a) treating all of the MSW and producing SRF, which it was

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assumed would be sent to a power station (Option 5a). The BPEO identified for North Yorkshire was an EfW facility (Option 1a), which was marginally favourable to MBT (Option 5a).

Joint procurement options appraisal and risk assessment

Following the completion of the BPEO assessment for each authority, a joint procurement options appraisal was carried out to build upon and refine the individual BPEOs. The two technologies (MBT and EfW) that had outperformed the others in the individual assessments were combined into 9 options in order to determine the best fit solution for the Authorities working in partnership. The joint procurement options appraisal identified a single EfW facility (Option A) as ranked first, closely followed by 1EfW and 1MBT with the SRF output being disposed of via EfW (Option F).

The Councils then subjected the outcomes of the joint procurement options appraisal to further evaluation of what they considered to be the key strategic risks and to test the sensitivity of the assumptions used in the appraisal. The result of this work broadly confirmed the technology rankings observed in the joint procurement options appraisal and tested positively against the BPEO.

Procurement Strategy review

Reflecting the then existing focus of PFI criteria for waste projects, the Councils were in the process of developing an OBC based on a semi-integrated contract, when they became aware of emerging alternative views of procuring waste management contracts, notably the Kelly Report and the strong emphasis by Defra for PFI applications to focus on residual waste treatment services. The Councils concluded that a review of their procurement strategy should be undertaken immediately.

The procurement strategy review involved identification and consideration of a combination of semi-integrated and disaggregated contract packaging options and funding approaches, with each option being subjected to a qualitative and financial appraisal, including an assessment of relative risks. The benefits and opportunities of greater regional working were also evaluated.

The results of this evaluation confirms that the procurement options present a complex array of issues, benefits and disadvantages. All options appear viable with no single option markedly more advantageous than all the others,

However, the Strategic Project Board concluded that the procurement of waste management services included within the Reference Project on a disaggregated basis, with residual waste treatment services and facilities procured through the PFI, offer Best Value. The Councils will seek to fund waste handling, recycling and composting services from internal resources. This may include PPP (effectively a charge to revenue), capital receipts, supported capital borrowing or Prudential Borrowing.

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Therefore, the PFI Reference Case will encompass the development and subsequent operation of residual waste treatment facilities only. However, the Councils recognise that the eventual choice of technology will be in response to market proposals on how to deliver output targets. No one option is more or less likely to deliver a particular technology. Following the results of this evaluation and assessment a short-list of five options was compiled for further appraisal as described below.

Option appraisal overview

Based on the process outlined above, the following five options have been short-listed for a detailed economic and performance appraisal for this OBC:

Option	Technology	Recycling/composting and landfill strategy
1 – Status Quo	Continue with existing service provision	N/A
2 – EfW only	1 EfW from 2010 in the County Council area	45% recycling by 2013 Landfill to max. allowed
3 – Combined technologies (with SRF to market between 2011 – 2013)	1 MBT from 2010 in York area 1 EfW from 2013 in the County Council area SRF sent to market 2011-2013	45% recycling by 2013 Landfill to max. allowed
4 – Combined technologies (with SRF to landfill between 2011 – 2013)	1 MBT from 2010 in York area 1 EfW from 2013 in County Council area SRF sent to landfill 2011-2013	45% recycling by 2013 Landfill to max. allowed
5 – Combined technologies with more thermal treatment	1 MBT from 2010 in York area 1 MBT from 2010 in County Council area 1 EfW from 2013 in County Council area	45% recycling by 2013 Landfill to max. allowed

Table 1.3 Short list of options

1.4.1 Performance of the short-listed options

The recycling/composting and BMW diversion performance of each of the short-listed options is set out in table 1.4 (page 13).

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Table 1.4 Recycling/composting and BMW diversion performance of the short-				
listed options from 2015 (using MEL waste composition data)				

Option	Recycling rate	Overall BMW diversion achieved (tonnes) by 2019/20
Option 1 - Status Quo	29.2%	91,863
Option 2 - 1 EfW	40.1%	321,986
Option 3 - 1 MBT/1 EfW	41.1%	325,522
Option 4 - 1 MBT/1EfW	41.1%	325,522
Option 5 - 2 MBT/1EfW	41.5%	326,901

All of the 'Do Something' options achieve approximately the same recycling/composting performance. The options with more MBT treatment deliver marginally better recycling rates due to more opportunity for recycling to occur. The recycling performance of the various options demonstrates that recycling rates can be enhanced through the District Councils' planned co-ordination of collection arrangements.

The BMW performance of the various options has been assessed against the final LATS allowances issued by Defra in August 2005, as shown in Section 4.8.1, table 4.4. The Reference Project modelling projects a LATS deficit for all of the options for each year up to the second target year. This is because the Councils have assumed a realistic timeframe for the commissioning of the EfW facility, which is crucially not operational until 2013/14. However, all of the Do Something options achieve LATS compliance in the longer term, through the provision of PFI support for the development of residual waste treatment facilities.

It should be noted that the Reference Project model is based upon 2003/04 waste flows and MEL waste composition data. However, more up to date waste flow information is continually becoming available to better inform the Councils' projected recycling and LATS position and has confirmed that the Councils' 2005/06 performance is in excess of the performance modelled for the Reference Project. The Councils have run initial sensitivities using a combination of 2005/06 waste flows and the NWC data, which indicate that the Councils could achieve a recycling rate of 46.3% and a BMW diversion performance of 76.6%.

Whilst the Councils have not updated the Reference Project model to reflect this position (because the position is continually likely to change as more up to date data becomes available), the Councils will continue to use the latest information in projecting their budgetary position in the short term and in establishing their LATS mitigation strategy. As outlined in Section 1.1, the Partnership believes that the waste composition data analysis currently being undertaken will support its view that an overall recycling rate of 50% by 2020, in line with the JMWMS, is achievable.

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1.4.2 Economic appraisal of options

The Net Present Cost ("NPC") to the Councils of the short-listed options are summarised in the table below:

Table 1.5 NPC of short listed options

Net Present Costs	Option 1	Option 2	Option 3	Option 4	Option 5
	£000's	£000's	£000's	£000's	£000's
Total Net Present Cost	706,523	509,303	560,374	578,461	622,272
Rank	5	1	2	3	4

1.4.3 Options appraisal summary

The modelling of the 'Status Quo' option indicates that it fails to meet the recycling and composting targets set out in WS 2000 of 33% by 2015 and the targets set out in the JMWMS of 40% of household waste by 2010, 45% by 2013 and 50% by 2020. It would also fall significantly short of the JMWMS landfill diversion target of 75% by 2013 and LATS allowances are exceeded in all years.

Although Option 2 (maximum diversion achieved through EfW) represents the lowest cost option and performs well with respect to recycling/composting rates and BMW diversion, Options 3 and 4 (which produce similar levels of recycling/composting and BMW diversion) are more consistent with the Partnership's waste strategy and preference for treatment of waste using a combination of thermal and biological means and score highest in the non-financial appraisal. Whilst there is still market uncertainty for SRF produced by MBT in the short term, Option 4 is considered to be a lower risk option than Option 3 and for these reasons Option 4 has been defined as the Reference Case. The Reference Case (Recovery Contract) element of the Reference Project will be procured through the use of PFI and thus forms the basis of this OBC. The Councils will, however, continue to explore market opportunities which may be available in the short term to process the SRF output.

It is recognised that significant investment in new residual waste treatment infrastructure will be required to support the delivery of the Reference Project and, more specifically, the Reference Case. Prudent provision in capital, lifecycle and operating costs has been made in this business case.

1.5 Value for money

This OBC assumes that Defra has already undertaken a Stage 1 programme level assessment for waste PFI projects as part of the Comprehensive Spending Review completed in 2004 demonstrating that waste, as an investment programme, is likely to achieve value for money under PFI. This OBC details the Stage 2 project level assessment aimed at verifying whether this initial decision to use PFI to fund the Reference Case is valid for the Councils.

Following the approach as outlined in the 'HM Treasury Value for Money Assessment Guidance' ("Guidance") issued in 2004, the project level assessment has considered both quantitative and qualitative factors, the results of which have been considered in Section 5. The quantitative analysis uses a prescribed methodology and electronic

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model provided by the Treasury to determine whether the Reference Case represents indicative value for money when compared to a Public Sector Comparator ("PSC").

The qualitative assessment produced a clear indication that in terms of viability, desirability and achievability the Councils are well positioned to deliver a PFI procurement. The quantitative assessment has produced a high indicative PFI value for money percentage of 14.4% on the Reference Case, the robustness of which has been demonstrated through sensitivity testing. Taken together these assessments have provided a clear indication that verifies the outcome of the programme level assessment that PFI represents value for money for the Councils' Reference Case.

1.6 Affordability

Two 'affordability' analyses have been undertaken: a comparison of the cost of the Reference Project with the 'Status Quo' option; and the identification of the 'affordability gap' between the estimated cost of the Reference Project and the commitment the Councils have made in relation to planned budgets for waste management and the anticipated level of Revenue Support Grant. The affordability analysis is based on 2003/4 waste flow data.

1.6.1 Comparison of the 'Status Quo' option and Reference Project

Table 1.6 below shows the cost of the Reference Project (including WCA transport costs for a like-for-like comparison) and the cost associated with the 'Status Quo' option over a 25 year period, based on a trading profile of landfill allowances, which assumes their value increases up to 2012/13 and then starts to decline as Tradable Permits become more plentiful in line with increases in diversion infrastructure. For comparison, the 'Status Quo' option where LATS penalties of £150/tonne are payable has also been included to demonstrate the worse case scenario.

	Option 4 Reference Project (including WCA transport costs)	Option 1 Status Quo – LATS profiled	Option 1 Status Quo – LATS at £150/t
	£000's	£000's	£000's
Project costs	1,398,967	785,749	785,749
Landfill tax	192,607	588,014	588,014
Landfill Allowance costs	(27,262)	385,846	746,143
Total nominal costs	1,564,312	1,759,609	2,119,906
Difference to next most expensive option	(195,297)	(360,297)	n/a

Table 1.6: Reference Project and 'Status Quo' cost comparison

This indicates that the cost saving to the Councils of implementing the Reference Project rather than the comparable "Status Quo – LATS profiled" option is approximately £195m. The graph below demonstrates the position on an annual basis.

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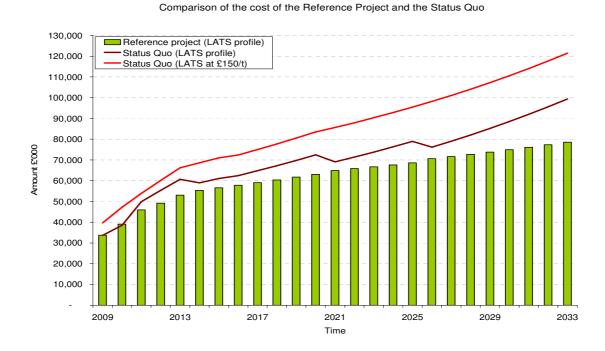


Figure 1.1 Reference Project Vs Status Quo

Figure 1.1 demonstrates that, on an annual basis, particularly in later years, the projected costs of the Reference Project are likely to be significantly less than the comparable "Status Quo – LATS profiled" option and also demonstrates the benefit of adopting a LATS trading strategy.

1.6.2 Determination of the 'affordability gap'

The table below shows the affordability gap for the Reference Project of circa £845m, taking into account the anticipated level of Revenue Support Grant (based on a PFI Credit of £65m) and the Councils' combined existing budget (inflated at 2.5%) that is available to help fund the project cost.

	Year 1 2008/9	Year 2 2009/10	Year 3 2010/11	Year 4 2011/12	Year 5 2012/13	Year 6 2013/14	25 year total
Nominal	£000's	£000's	£000's	£000's	£000's	£000's	£000's
Reference Project cost	28,446	31,840	32,771	37,730	38,829	61,446	1,552,306
Projected Budgets	17,292	17,724	18,167	18,622	19,087	19,564	590,657
PFI Support	-	-	-	2,408	2,408	5,547	115,756
Affordability Gap	11,154	14,116	14,604	16,700	17,334	36,335	845,893

Table 1.7 Affordability analysis – including PFI credit revenue support

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The affordability gap in year 1 (2008/09) between the Reference Project and projected existing budgets is anticipated to be approximately \pounds 11.1m. This increases to around \pounds 36m in year 6 (2013/14). The Reference Case Unitary Charge has been profiled to reflect that the Councils will not pay for residual waste treatment services/infrastructure until they are provided by the PFI Recovery Contractor. This means that the service costs will increase significantly in 2013/14 when all Recovery Contract infrastructure is in operation. The year one impact of \pounds 11.1m equates to a Council Tax increase of approximately 4.2% for the Council and 4.6% for the City Council.

Given the above position, the Councils therefore believe that the Reference Project represents the most economically advantageous option for the individual Councils in order to ensure compliance with the EU Landfill Directive, other requirements and to deliver the best possible waste strategy.

As set out in table 1.7 above the Councils are facing an affordability gap of around \$845m (including the benefit of PFI revenue support) over the life of the contracts, covering all aspects of the Reference Project (residual waste treatment, recycling, composting and landfill).

The Councils have a history of providing high value for money services to their taxpayers. It will, however, be very difficult for the Councils to bridge the affordability gap as both Councils have a combination of very low Council Tax and extremely low spending, relative to other comparator authorities. The required additional funding is a bigger proportion of the Councils' budgets than other higher spending Authorities. There is a bigger percentage impact on Council tax because of the Councils' current low Council Tax base. It must be noted that the Councils individually have other statutory obligations which may compete for resources and the Government has established financial parameters that constrain the ability of Local Authorities to raise funding, for example Council Tax capping.

However, because of the significance of this issue both the Councils:

- have identified the procurement of waste facilities as a key priority in the respective Council Plans. The funding required features prominently in the Council's Medium Term Financial Strategies ('MTFS');
- have spent and committed significant amounts of additional resources to waste management in recent years' budgets, ranging from capital on landfill sites, and infrastructure to additional, collection, transfer and recycling costs; and
- are committed to waste and LATS strategies that are aimed at reviewing and improving upon waste management performance with a view to minimising the future volume of residual waste that they are required to deal with.

The Councils may also seek to profile the Unitary Charge for the PFI Recovery Contract in order to 'smooth' the increase required year on year and ensure that Council Tax increases are proactively managed.

Notwithstanding the funding constraints identified above, the Councils recognise the necessity to allocate resources sufficient to make the project affordable over the life of the contracts, subject to any further obligations and financial parameters as directed by DEFRA or any other Government department. This commitment is demonstrated by the approval of this OBC by the Executives of the County Council and City Council respectively, on 12 September 2006.

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1.7 Delivering the project

The Councils have been proactive in addressing issues that are important to the delivery of the project. Work is well progressed in developing the technical, financial and legal mechanisms i.e. Output Specification, Payment Mechanism and Project Agreement; which underpin the project. The Public Private Partnership Programme ("4Ps") model documentation and guidance has been used in the preparation of these documents. The work undertaken in addressing the key deliverability issues to facilitate a successful project is set out below.

1.7.1 Output specification

The Councils are in the process of drafting an Output Specification, in line with the 4Ps documentation, which will be further developed prior to the Official Journal of the European Union ("OJEU") Notice and updated as required during the procurement process. As previously confirmed the range of services to be procured under the PFI scheme will include residual waste treatment only. Other services, which will be procured separately, comprise the following;

- HWRC management;
- Reception facilities and transfer;
- Material Recycling Facilities ("MRF");
- Composting; and
- Landfill disposal.

The packaging of these other services is under consideration and will be determined following a full options appraisal. However the Councils recognise that the eventual choice of technology will be in response to market proposals on how to deliver output targets. No one option is more or less likely to deliver a particular technology.

1.7.2 Key Performance Indicators ("KPIs")

KPIs will be developed during the procurement to reflect those aspects of waste management which the County Council and City Council require the PFI Contractor to deliver.

The KPIs will be structured to manage fundamental aspects of the project, to ensure that key aspects are delivered for the duration of the project, whilst allowing flexibility to adapt to changes in the service over the life of the contract.

1.7.3 Payment Mechanism

The Payment Mechanism is based on 4Ps draft guidance, linked to the service outputs defined in the Output Specification with deductions made when those outputs are not achieved. It is underpinned by the principles of payment for services in line with availability and performance; transfer of risk in line with service obligations; and financial incentives to perform in accordance with the Output Specification.

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The Payment Mechanism will include the following:

- Tonnage adjustments specific to individual waste management processes;
- Landfill and BMW diversion adjustments to provide incentive to the PFI Contractor to divert from landfill in accordance with the waste hierarchy and to mitigate the Councils' exposure to LATS;
- A performance bonus and deduction system that is based on an equitable share of upside and downside risk; and
- An excess profit share mechanism that differentiates between profits derived through performance of the contract and those resulting from market economics, eg windfall gains from Renewable Obligation Certificates ("ROCs").

The Payment Mechanism will be supported by a performance management system, linked to the KPIs, which will levy deductions where under or non-performance is achieved.

1.7.4 Financial Allocation mechanism

The Councils have jointly developed a financial allocation mechanism to ensure an equitable allocation of financial and legal obligations to each Council under the PFI contract. Areas considered include apportionment of payment obligations and PFI Credits and the allocation of site costs. The mechanism, once finalised, will form the basis of a Schedule to the Joint Working Agreement between the Councils which is currently being drafted.

1.7.5 Balance Sheet treatment

An initial view of the balance sheet treatment prepared by the Councils' financial advisors Ernst & Young concludes that the transaction could achieve off balance sheet treatment for the public sector under the Treasury Guidance Note "Private Finance Technical Note 1 (Revised)."

1.7.6 Market interest

The Councils are fully aware of the current capacity constraints within the waste management market and of the need to maximise market appetite and interest for their project. In view of this, two "industry days" with potential bidders were held to allow a two-way discussion and debate of the key project issues which are likely to drive the project. Attendees at both the Financial Providers and the Waste Management Sector industry days indicated broad agreement with the approach which the Councils are proposing to adopt for their project.

1.7.7 Market for process outputs

The Councils are aware of the current difficulties in securing market outlets for the outputs from MBT processes, and have identified the potential lack of market outlet as a key project risk. Consequently, the Councils do not wish to rely on the market to deliver an outlet for the SRF, particularly given the long-term nature of the proposed contract. The Reference Project therefore envisages that the MBT facilities will be configured to maximise the production of SRF for combustion in a dedicated thermal treatment plant, delivered as part of the Reference Case.

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The Councils have also adopted a prudent and realistic timeframe for the delivery of the treatment facilities, meaning that it is envisaged that there could be up to two years where there is no in-county SRF processing capacity (2011-2013). The Councils are exploring alternative disposal routes for SRF produced during this period as part of the overall LATS strategy. Options include the potential for taking advantage of regional short-term processing capacity and/or procurement on a short term basis of alternative processes which maximize bio-degradation of waste prior to landfilling.

1.7.8 Planning

The Councils wish to take all reasonable steps possible to mitigate planning risk for the contract. In view of this, the Waste Planning Authorities have reviewed their programmes for the preparation of new Minerals and waste planning policies in North Yorkshire Minerals and Waste Development Framework ("NYMWDF") and are seeking to integrate these programmes with the PFI procurement project timetable so far as possible. Both the York Local Development Framework ("LDF") and the NYMWDF will set out a clear spatial strategy for the planning of new municipal waste management facilities and will, so far as practicable, seek to identify specific sites or locations for the full range of facilities needed. Site allocations will be supported by criteria based policies for site development to enable a degree of flexibility within the framework and to allow for the development of non-allocated sites where necessary in order to deliver an adequate network of sites. Close contact is being maintained between the planning teams in York and North Yorkshire and with staff directly involved in the procurement exercise to ensure that a high degree of co-ordination is achieved.

1.7.9 Sites and Planning Permissions

The Councils are aware of the need to maximise competition and ensure a level playing field for all bidders. In view of this, the Councils are undertaking a site search exercise to identify sites within the Councils' ownership and potential sites owned by the private sector. In the case of the latter, this may require their acquisition from the private sector, either by securing options, long term leases or purchasing land.

The Councils' intention is to make sites available to all bidders for the PFI recovery contract. The Councils' strategy is to ensure, as a minimum, that two strategically-located sites are available to house residual waste treatment facilities, in line with the assumptions made in the Reference Project. Based on the site identification work undertaken, it is highly unlikely that any suitable sites will be identified in the York area. However, the Councils will continue with the site search and form a view as to the way forward after this work is complete.

In order to limit potential delays caused by protracted planning considerations post procurement completion, the Councils propose to progress work on planning applications as soon as possible. This is likely to entail the preparation and submission of planning applications for smaller facilities (i.e. transfer stations) but is likely to stop short of submitting planning applications for the proposed residual waste treatment facilities. This is due to the need for specific and detailed design information to satisfy Environmental Impact Assessment ("EIA") requirements, which is particularly an issue for EfW facilities, and which is unlikely to be available until a preferred PFI contractor has been selected. However, it is intended, where possible, to undertake environmental baseline assessment work on the preferred treatment sites in order that planning application work pre and post contract completion can be accelerated.

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1.7.10 The role of Yorwaste in the project

The Councils have considered the position of Yorwaste and have concluded that the company should not bid for the PFI Recovery Contract.

Waste Handling and Recycling Service

The Councils recognise the expertise of Yorwaste in providing waste handling and recycling services. It is anticipated that Yorwaste will therefore participate in the competition for such services.

It is acknowledged that the company has a strong position in the local market and the Councils will therefore ensure that any Yorwaste assets of value to competitors will be made available in order to ensure a level playing field and best value through maximising competition.

1.7.11 LATS Strategy

The Reference Project model has provided a projection of the Councils' LATS position from 2008, over a 25-year period. This projection is based upon 2003/04 waste flows combined with the waste growth projections for the Reference Project (as set out in Section 3.1.1), which predicts that the Councils will not meet their LATS obligations prior to 2013 without some additional interim bio-diversion measures or external allowance trading. This position, crucially, arises because of the realistic timeframe adopted for the residual waste treatment facilities becoming operational (in 2013/14).

The Councils have developed a LATS strategy which includes a range of measures to mitigate the projected LATS exposure in the years to 2013, including:

- Managing waste volumes by improved waste minimisation;
- Commercial waste minimisation and preferential pricing mechanisms to encourage schemes that facilitate bio-diversion from landfill;
- Trading (buying) allowances;
- Bringing forward recycling plans; and
- Considering and implementing interim bio-diversion/treatment proposals.

1.7.12 Bankability

The project has been structured to ensure it is bankable. The funding structure of the Reference Case is based on a typical PFI structure comprising 85% senior debt and 15% equity.

The programme for construction of the key facilities is aligned to the Councils' need to access waste treatment facilities in order to achieve its BMW diversion obligations. However, whilst it is assumed that planning for the MBT and EfW facilities will be pursued in parallel, based on experience on other waste management projects, the delivery timeframe adopted is prudent and realistic and assumes that the EfW will not be delivered until 2013. Nevertheless, this allows for the provision of only one senior debt facility that is able to be committed on contract signature.

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Furthermore, there have been an increasing number of banks showing strong interest in the waste management sector over the last twelve months given the level of investment required in this sector over the short to medium term, as evidenced by the high level of interest and attendance at the Financial Providers' Market Testing Day on 25 July 2006.

1.7.13 Competitive Dialogue

Whilst the Councils have an agreed JMWMS that has been informed by the BPEO, risk assessment, performance and economic cost appraisal exercises that have been carried out, there is not necessarily one solution to deliver that strategy. Consistent with PPP/PFI principles regarding the transfer of risks, the Councils do not wish to be prescriptive about the technology to be used in delivering their solution. In view of the complexity of the Reference Case (Recovery Contract) the Councils expect to follow the Competitive Dialogue procedure for its procurement. However, the Councils are mindful of the market's concerns about the practicalities of adopting the Competitive Dialogue approach (as set out in Section 1.7.6 above and Section 7.7a of the main document).

1.7.14 Project Management

Both Councils have extensive experience of managing major procurement projects including the current contracts for waste disposal, composting and HWRC management and have concluded successful PFI projects with others currently in progress. Working alongside its advisors, the procurement team is well placed to effectively manage a project of this nature and is familiar with PFI as a procurement route. The day to day work is carried out by the joint project team of senior professionals from waste management, finance and project management. The Joint Procurement Project Manager has overall responsibility as project manager, and works in conjunction with the City Council's PFI Project Officer (Assistant Project Manager).

External consultants have been appointed to prepare the OBC and provide advice on the procurement process to include assisting with the development of the Invitation Participate in Dialogue ("ITPD"), finalisation of the Output Specification, preparation of evaluation framework, selection of short-listed parties and preferred bidder, negotiations and agreement of contracts. The consultants are in effect part of the joint procurement project team and participate in all project team meetings. A joint procurement budget of approximately £1.9m has been set aside for this project.

1.7.15 Contracting and decision making arrangements

It has been determined that an 'inter-authority' style legal agreement will be developed to demonstrate to Defra and the market, the full commitment of the Councils to their partnership. The legal agreement as currently drafted secures an agreement from the County Council and the City Council to work together to draw up a new strategy and to negotiate and agree a legally binding Joint Working Agreement, which will act to underpin the successful delivery of the project.

As part of the legal agreement, the Councils have already established a Joint Working Agreement ("JWA") which includes a robust and efficient decision-making structure where one authority (the County Council) is demonstrably (by use of its casting vote) the lead authority. This approach is, essentially a delegation (in accordance with the scheme of delegation of each Council) to Assistant Director level.

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The contracting structure which the Councils will enter into with the Contractor's SPV will be for the County Council to be the lead authority. This means that the Contractor will be contracting with one party only.

Certain decisions (e.g. long listing, short listing, contract award) are reserved to the respective Councils (acting through their executives) and cross party, political support is afforded through the involvement of the Members Joint Advisory Group ("MEMJAG"). Examples of Council Reserved Matters include:

- Approval of the revised JMWMS;
- Approval of the OBC; and
- Award of the Contract(s).

The joint procurement project team, whose members are listed in Section 7.12, table 7.2 are authorised to make and put into effect all decisions relating to the project, other than any matter which is a Reserved Matter or is a Council Reserved Matter. Decisions which are 'Reserved Matters' will be referred to MEMJAG for resolution.

MEMJAG (consisting of three Members from each Authority and supported by officers from both authorities) will be chaired by the County Council. The function of this group is to provide guidance and advice only, to officers on key decisions in relation to the Partnership, and to recommend which decisions in addition to those 'Council Reserved Matters' should be referred to the Executive.

1.7.16 Timetable

A high level procurement timetable is provided below which assumes OBC approval at the Project Review Group ("PRG") meeting in January 2007. To achieve this approval the Councils intend to submit their OBC in September 2006. Given the progress which has been made to date, this timeframe is deemed achievable by the Councils.

	Stage	Date
1	Submission of OBC to DEFRA	September 2006
2	OBC approval	January 2007
3	OJEU notice published	February 2007
4	Information Pack and PQQ issued	March 2007
5	Issue Invitation to Participate in Dialogue	July 2007
7	Call for Final Tenders	November 2007
8	Announce Preferred Bidder	June 2008
9	Contract sign-off	November 2008

Table 1.8 Procurement Timetable