

WEWM/12/05

Committee: West Essex Waste Management Joint Committee

Date: 30 November 2005

OUTLINE BUSINESS CASE FOR THE ESSEX WASTE PROJECT

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Purpose:

The purpose of the attached paper is to present the 'Outline Business Case' (OBC). A copy of the Executive Summary of the OBC is attached. The Joint Committee is requested to note the contents.

f To Delia - 17th Dec 2005

Executive Summary

1 Introduction

The Essex Waste Management Partnership (the Partnership¹) is in the process of confronting one of the single largest legislative challenges ever presented to local authorities. Ensuring compliance with the European Landfill Directive and associated national recycling legislation will require a massive undertaking that will demand skilful management and levels of capital investment unprecedented in UK municipal waste management terms. Success for the future will necessitate a radical transformation of current waste management infrastructure in the Partnership area.

Projections for waste arisings over the next 25 years suggest unsustainably high impacts for the Partnership, both in financial and environmental terms. Historically, the majority of waste arisings have been landfilled; however the Partnership recognises that this is no longer a pragmatic or desirable means of managing waste in the future.

In response to this challenge, Essex County Council (ECC) together with its twelve constituent district and borough partners has prepared a draft Joint Municipal Waste Management Strategy (JMWMS) setting out the shared approach for the development and delivery of local authority waste management services within Essex. The unitary authority of Southend on Sea Borough Council (SoS BC) has developed its own MWMS and the simultaneous delivery of these waste management strategies will ensure that the Partnership is able to attain legislative compliance and deliver Best Value services.

This Outline Business Case (OBC) is an application by the Partnership for Private Finance Initiative (PFI) Credits to support the development of capital infrastructure essential for the successful delivery of the waste management strategies of Essex and Southend, resulting in increased recycling and diversion of biodegradable municipal waste currently sent to landfill. If approved, it is expected that a PFI contract will be signed in 2007/8 for this purpose.

2 Summary of Key Conclusions

Several key conclusions arise from this business case:

- The existing service provision is not sufficient to meet the Essex and Southend MWM strategy targets;
- Without the project, the Partnership will experience a 7.5 million tonne shortfall in the diversion of biodegradable municipal waste required to meet the Landfill Directive targets (see Figure 3);

¹ The Partnership is defined as the twelve District and Borough Councils of Essex working together with Essex County Council and the Unitary Authority of Southend-on-Sea Borough Council

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- The Reference Project will contribute an additional 6.7m tonnes of recycling to the Partnership;
- The OBC Reference Project flows directly from the needs of the two MWM strategies;
- The Reference Project represents best value for the council taxpayers of the Partnership;
- The Waste Disposal Authorities (WDAs) of ECC and SoS BC are committed to meeting the affordability implications set out in the Reference Project.
- The level of PFI credit being sought is £90m;
- The OBC submission has the full support of key stakeholders.

3 Strategic Context

The Essex Partnership represents one of the largest waste disposal groupings in the country outside of London and the Metropolitan areas and has responsibility for the management of waste from over 1,484,000 residents.

In 2004/05, 833,076 tonnes of municipal waste (household and commercial) were generated in the Partnership area. Approximately 70% of the total waste was disposed of in ECC's and SoS BC's contracted landfill sites, whilst the 30% balance was recycled and composted in line with Best Value targets.

The Partnership's infrastructure and resources are facing severe pressure from a number of directions, including notable housing growth being imposed through Regional Spatial Strategy 14 (RSS14). If implemented, this will result in approximately 104,900 additional new homes in the Partnership area by 2020, with a particular focus on the Thames Gateway and M11 corridor. Historically, municipal waste has grown in the area at 3% per annum, but attenuating this rate will be extremely challenging in the face of the RSS14 requirements.

The MWM strategies of Essex and Southend set out clear visions for the development and delivery of local authority waste management services to fully address the impending pressures from national policy, legislation change and service needs of the local community, as identified through public consultation.

The key objectives of the Essex JMWMS are to:

- Comply fully with the Landfill Directive;
- Meet and exceed the countywide Best Value and Waste Strategy 2000 recycling, composting and recovery targets, with an aspiration to attaining 60% recycling;
- Stem the increases in municipal waste (MSW) from 3% to 2% by 2010 and to 1% by 2015 and beyond;

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- Explore innovative disposal solutions, based on the MBT family of technologies, to assist in diverting biodegradable municipal waste and to recycle and recover more value from residual waste.

The key objectives of SoS BC's MWMS are consistent with the Essex JMWMS, seeking to divert biodegradable waste away from landfill and to meet statutory recycling targets.

There is clear scope for and commitment to collaboration between the WDAs in the interests of achieving sustainable and effective solutions for the provision of waste services across the Partnership area.

4 Analysis of Existing Service Provision

The current waste infrastructure in the Partnership area includes 25 Civic Amenity and Recycling Centres (CARCs) (2 of which are in Southend), 8 'windrow' green waste composting sites and 6 landfill sites. The existing system of waste management relies heavily on landfill, with the waste collection authorities delivering residual waste direct to landfill. The associated transport incurs 'tipping away' costs to ECC of £1.2m per annum, as no transfer arrangements currently exist to reduce transport distances for the refuse freighters.

ECC's waste disposal services are delivered through separate competitively tendered contracts. Service delivery of the 23 CARCs is split north/south between two contractors addressing all aspects of the service from site operation to recycling. Total service costs amounted to £38.7m in 2004/5.

The 12 district and borough council waste collection authorities (WCAs) deliver varying service standards across Essex, with the majority of households receiving multi-material kerbside recycling. Seven of the councils deliver these services through in-house direct service organisations.

SoS BC deliver their waste services through a single contract for waste collection, recycling and disposal, amalgamated with other street scene services. The disposal element of their budget accounted for approximately £4.5m in 2004/5.

Analysis of the existing service provision clearly shows that it is insufficient to meet both the statutory Landfill Directive targets and recycling aspirations contained within the MWM strategies. Lack of capital investment also means that potential Gershon efficiency opportunities are being missed, particularly in respect of transport arrangements.

5 Options Appraisal

Following the guidelines set out in the 4Ps Waste Management Procurement Pack ("4Ps Toolkit"), a range of potential options were identified in order to undertake a detailed and robust comparison of service options in accordance with best value. As set out in the

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guidance, the options appraisal is designed to support the previous work identified in the development of the MWM strategies.

In 2002, ERM produced a consultation draft MWMS for Essex, Southend & Thurrock which outlined a range of waste management options ranging from 33% to 50% recycling, with a range of residual waste treatment technologies including incineration, mechanical biological treatment (MBT) and landfill. These options were presented, along with details of the costs and environmental impacts, and tested through a public consultation exercise called War on Waste (WoW), revealing support for high recycling with MBT of the residual waste.

Owing to the emergence of anaerobic digestion (AD) as a deliverable technology choice, Enviros were commissioned in 2003 to produce a report on technology choice which scored a range of technologies according to cost and a qualitative assessment of environmental performance. On the basis of the findings, ECC interpreted this work and adopted a policy position that favoured MBT coupled with AD, which subsequently formed the basis of future options appraisal work commissioned by the Partnership.

In order to calculate the preferred spatial distribution of plants, a detailed Best Practicable Environmental Option (BPEO) study was conducted in the Thames Gateway area and concluded that fewer centralised facilities within an area perform better than multiple dispersed facilities.

This conclusion was then tested at a countywide level through a set of six detailed financial and operational BPEO models, constructed to test three, two and one area configurations for the whole of Essex, operating at high (50%) and low (33%) recycling rates. The reports concluded that a single or two-area configuration operating on a high or low recycling rate could represent the BPEO, also offering the lowest costs (£150m to £472m lower over the project life). However, through Partnership debate, it was agreed that a single plant serving the whole of Essex under a single contract was unacceptable, particularly in terms of the Proximity Principle. A two-area (two MBT plant) disposal solution with a network of satellite transfer stations was therefore adopted as the preferred Reference Project, consistent with the supporting BPEO and financial appraisal studies.

Value for Money Analysis

A value for money (VfM) analysis has been undertaken to assess whether a PFI solution could deliver value for money when compared to a traditional procurement.

The VfM analysis has been performed in accordance with the requirement of the Treasury Green Book "Appraisal and Evaluation in Central Government". It suggests that the net present value of costs to the Partnership under the PFI option, taking into account the net present value of risk retained by the Partnership and the required tax and optimism bias

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adjustments, could be lower than under a traditional procurement. A summary of the breakdown of net present cost analysis is shown in Table A:

	PSC NPC £000's	PFI NPC £000's
South Region		
Base Case Scenario (18% pre-tax IRR)	727,762	643,821
Indicative PFI value for money %		11.53%
North Region		
Base Case Scenario (18% pre-tax IRR)	918,525	810,774
Indicative PFI value for money %		11.73%

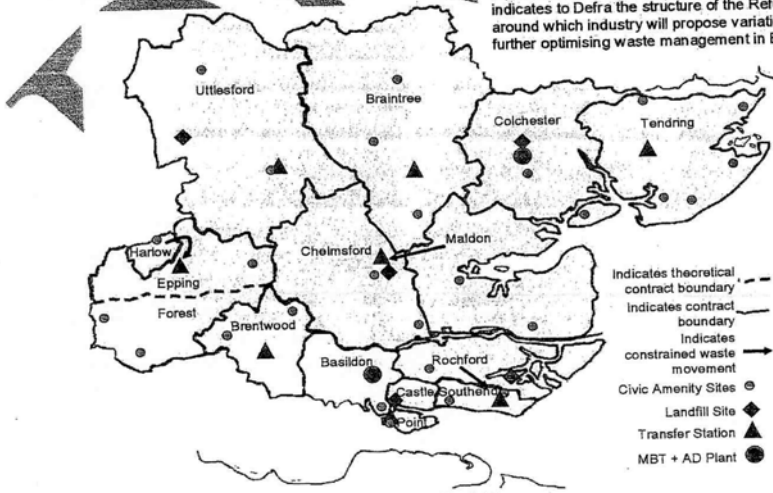
Table A - Indicative PFI Value for Money Result

6 The Reference Project

The Partnership has defined a Reference Project that consists, in terms of major capital investment, of 2 MBT plants, 8 satellite transfer stations and 27 CA sites (only 2 of which are new build), serving two geographical areas. However, the Partnership acknowledges that alternative solutions may well be proposed by the private sector based on the Partnership's Output Specification.

Figure 1 Reference Project Infrastructure

Note: The Reference Project is not necessarily intended to represent the actual detail of infrastructure required, rather it indicates to Defra the structure of the Reference Project solution around which industry will propose variations and ways of further optimising waste management in Essex & Southend



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In terms of delivering efficiency savings, the PFI Reference Project seeks to maximise horizontal efficiency benefits through contractual integration of disposal services. The overarching delivery of the MWM strategies through separate workstreams will focus on deriving horizontal efficiency savings available through delivery of collection and recycling services on a local area basis, with the interrelationship between collection and disposal being managed through detailed system design by the Partnership. In this way, efficiency savings identified by the Gershon Report can be realised.

For clarity, Figure 2 shows the services in the pink box that will be procured directly as contractual components of the PFI Reference Project. The services shown in the yellow and blue boxes are those which will be delivered as separate workstreams outside of the PFI contract, but as critical components of the overall MWM strategy implementation.

To ensure a coordinated approach to the delivery of the Reference Project, along with collection infrastructure and other supporting disposal infrastructure such as in-vessel composting, an overarching Procurement Approach paper was prepared and agreed by the Partnership. This document sets out in detail the interaction of the Reference Project with other procurement activities required to deliver the MWMS of Essex and Southend. In summary, it describes three area collection contracts feeding waste and recycle into a two-area disposal solution.

Procurement Scope & Approach

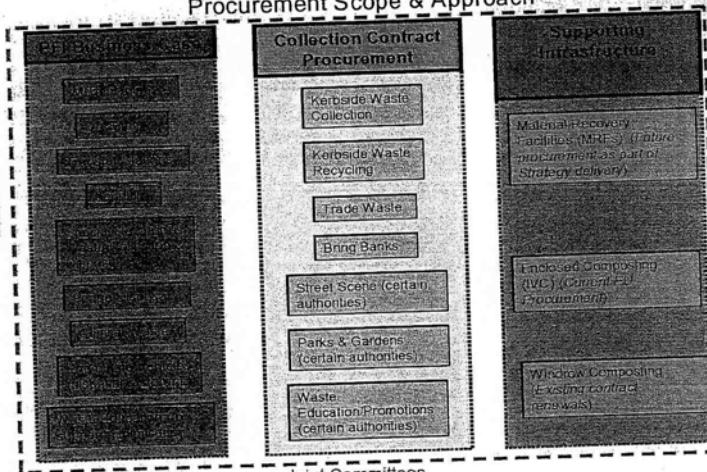


Figure 2 Procurement Workstreams

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Performance

The Reference Project itself performs well in terms of projected diversion of biodegradable municipal waste (BMW) from landfill and delivery of additional recycling for the Partnership. Details of the BMW diversion performance and recycling are illustrated in Figure 3. When coupled with the other procurement activities in the agreed Partnership Procurement Approach, the Reference Project will ensure success against the Landfill Directive and other local and national recycling targets.

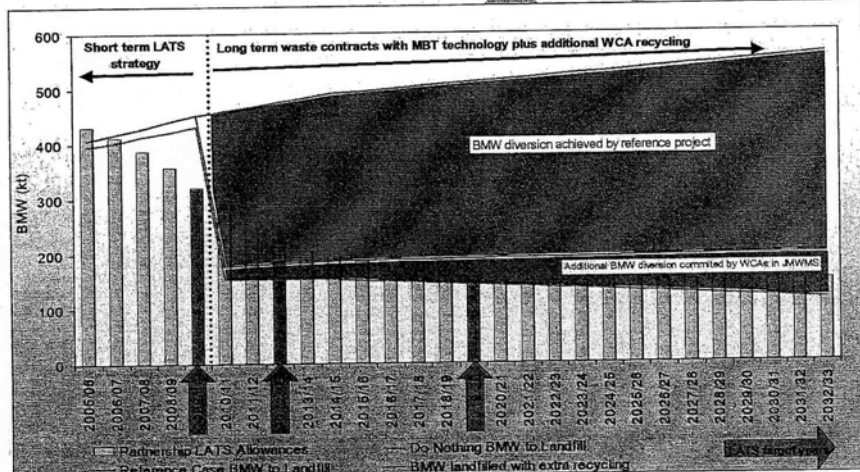


Figure 3 - BMW Diversion Performance

Affordability

As demonstrated by the VFM analysis, PFI has the potential to deliver best value in terms of the procurement options available. Within this context this OBC examines the affordability of the Reference Project in comparison with the "Do Nothing" option and the ECC & SoS BC waste management budgets (existing annual budget projected to the end of the contract). Figure 4 shows the projected costs of a PFI project (Unitary Charge payable to the PFI service provider) to ECC & SoS BC against the projected "Do Nothing" costs over 25 years.

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The graph illustrates that to "Do Nothing" would be £583m more expensive over the project life than the PFI project option (assuming Landfill Allowance shortfalls incur fines at £150 per tonne). The two options cost the same if Landfill Allowances can be obtained at £46 per tonne over the entire project life, calculated on the basis of receiving £90m PFI credits. Availability of allowances at this price is however extremely unlikely given the anticipated national demand.

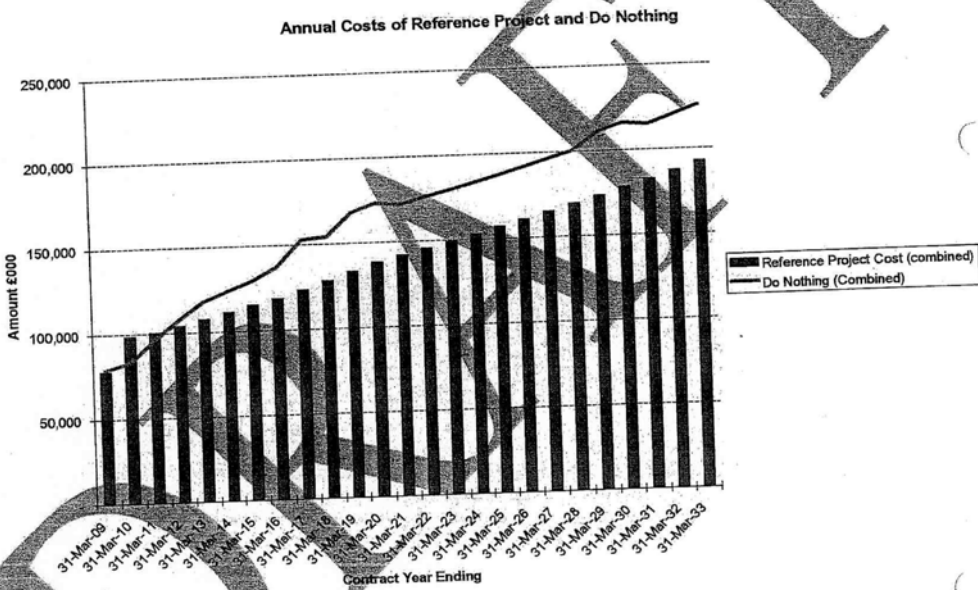


Figure 4

The projected costs (or Unitary Charge) of the Reference Project were also compared to ECC & SoS BC existing waste management budgets that relate specifically to the Reference Project (£36.4m at 2007/8 prices) inflated by 2.5% p/a over the 25 years. The results are shown in Figure 5.

Figure 5 demonstrates that significant funding is required in excess of existing waste management budgets. It also serves to highlight the need to seek PFI credit funding to contribute towards the private sector investment required to procure an affordable and deliverable waste management project to achieve the joint objectives set out in the Essex and Southend MWM strategies.

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Affordability Gap at Current Budgets

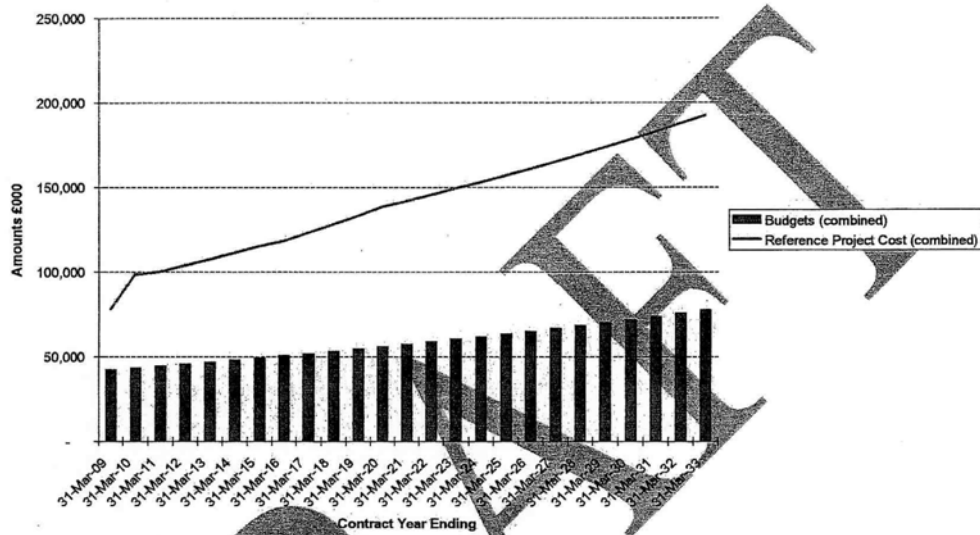


Figure 5

Table B – Breakdown of ‘Do Nothing’ costs vs Reference Project

Partnership	Do Nothing £ '000	Reference project £ '000
Project costs	2,212,952	3,019,524
Landfill tax	659,336	361,250
Landfill allowance costs	1,225,634	133,994
Total nominal costs	4,097,922	3,514,768
PFI support (£90m)	-	(172,775)
Projected budgets	(1,274,883)	(1,274,883)
Affordability Gap	2,823,039	2,067,110
Additional Cost of ‘Do Nothing’	755,929	-

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The Table B summarises the contribution from PFI credits to the total cost of the PFI project.

Whilst the projected costs of the Reference Project still exceed current waste management budgets, after taking into account revenue support from PFI credits, ECC & SoS BC are committed to finding the additional resources required to make the project affordable over the life of the contract. This commitment is evidenced through the signed letters of support for the project and the heads of terms agreement between ECC & SoS BC.

7 Delivering the Project

Two principal sites are required in order to deliver the Project. It is acknowledged that a number of potential contractors will have control of suitable sites in the Partnership area and, in the light of this, the principal aims of the Partnership's site strategy are to:

- Create a level playing field such that contractors without existing sites are not deterred from bidding for the project or disadvantaged as part of the procurement process; and
- Internalise and manage as far as practicable the deliverability risks to the project associated with site availability and planning, recognising that in a number of respects the public sector is best placed to manage these risks.

ECC & SoS BC have adopted a site specific Waste Local Plan that identifies six areas of search suitable for major waste management infrastructure. This plan will serve to support any future planning applications for waste facilities on the sites identified.

Whilst the North Area is home to five sites identified in the WLP, there is only one WLP site in the South area. To create a more level playing field between the two areas, ECC is in the process of securing a 30-year leasehold interest in the southern site, along with planning permission for an integrated facility on the land. Whilst this may not eliminate the need for the successful contractor to submit a subsequent planning application, the existence of a detailed planning approval for the site will provide the PFI contractor with significantly greater confidence of site planning deliverability.

The Partnership appreciates the importance of recognising and managing the key risks within the project and has established a risk register which currently identifies 73 major risks that could affect the project. Each of the 73 risks currently identified have been scored according to their likelihood and impact on the deliverability of the project. These risks have been allocated to named individuals who are responsible for undertaking measures to manage their respective risk. The risk register is continuously monitored through a "risk management cycle" to ensure that the risks remain current, and the proposed actions remain appropriate.

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A contract risk register, setting out the Partnership's proposed allocation of risk within the contract has also been established.

8 Project Management and Stakeholder Engagement

Regular Partnership meetings at senior officer and member level have played a crucial role in building relationships and facilitating decision making. To provide structure to this process, a detailed Project Management Plan has been developed which sets out robust governance processes and timetabling which guide the development and delivery of the project.

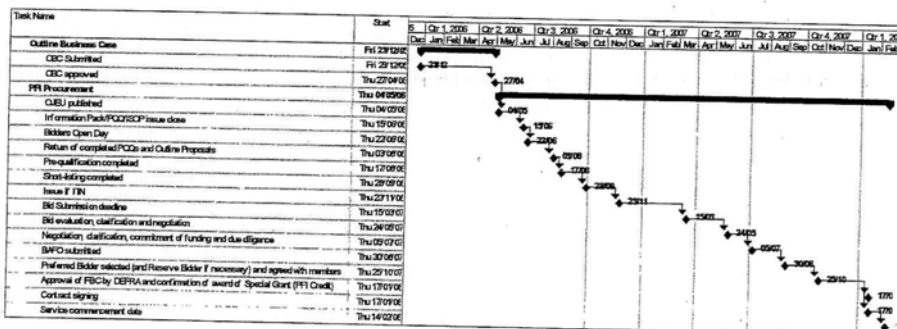
At the heart of the governance process are three area Joint Committees that are made up of elected members from the relevant WCAs, ECC and in the Thames Gateway Area SoS BC. These Joint Committees have delegated powers in relation to the procurement of waste management services for their respective areas.

The Partnership has developed, and will continue to develop, market confidence in the Project to ensure the successful delivery of the procurement process and the long-term contract(s). Initiatives carried out to date in order to build this confidence include two formal market testing events, industry questionnaires and informal market dialogue.

The Partnership has also undertaken extensive stakeholder engagement with the public to determine service needs through a variety of consultation methods. External organisations have also been consulted such as Defra and 4Ps and other local authorities involved in waste PPP/PFI projects.

The objective of the project is to secure contract close by January 2008, with a view to having facilities operational by 2010/11. An indicative procurement timetable for delivering the Project is set out in Table C.

Table C Procurement Timetable



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9 Support and Commitment

The Partnership has provided a high level of evidenced support and commitment to the overall Procurement Approach through Joint Committee resolutions endorsing the approach. Critically the OBC principles themselves have been endorsed by the Partner authorities in the following way:

- Letters of support from ECC & SoS BC committing to release the necessary resources to deliver the project;
- A Memorandum of Understanding signed by the 12 constituent WCAs, the principles of which are:
 - A commitment to work together on integrated system design across collection and disposal;
 - A commitment on exclusivity of waste;
 - A commitment to deliver waste in an agreed format;
 - An agreement to deliver as a minimum current kerbside recycling levels;
 - A collection system change control and notification procedure.
- Resolutions by the three area Joint Committees (constitutionally empowered to make decisions on the procurement process on behalf of the parent authorities) to support the PFI Reference Project and to take a proactive role in exploring the procurement of their respective integrated collection contracts.

In addition, the Partnership has secured clear support for the project from the service users, namely the citizens of Essex, through an extensive and successful JMWMS public consultation process.

10 Conclusions

The strategic and financial evaluation of options for waste disposal shows that the Reference Project will provide the greatest deliverable environmental benefit for the Partnership, whilst at the same time meeting the needs of the Stakeholder aspirations and exceeding legislative demands. However, the additional costs associated with delivering the project cannot be funded from ECC & SoS BC's own resources alone and the project is only achievable if this application for PFI credits is successful.

If PFI credits were allocated, this investment would deliver key elements of waste management infrastructure that are integral to the successful delivery of the overarching MWM strategies of Essex and Southend. In turn, the project would unlock a more sustainable waste management future for Essex, making a significant contribution to the ability of England and Wales to meet its obligations under the Landfill Directive.