

Draft Improvement Programme Workstreams

1 Workstream A: Securing LWaRB support for some element of capital spend

- 1.1. The London Mayor is chairing a London Waste & Recycling Board (LWaRB) that has approximately £84m of funding available to support more sustainable waste management solutions in London between 2008 and 2011. The Board met for the first time on 11 September and it is unclear at this stage what priorities, application process and focus the funding may have. It is reasonable to assume that capital rather than revenue expenditure will be favoured and, given the previous Mayor's focus on commercial waste solutions, municipal waste management proposals will face stiff competition from developed proposals on commercial waste.
- 1.2. We need to be realistic about what North London might achieve in bidding to a London-wide fund for municipal and commercial waste and be able to demonstrate the contribution to more sustainable management and early deliverability (including site identification/ ownership). On that basis, and taking account of potential other funding sources, we would apply for LWaRB support for the comprehensive upgrade of North London HWRCs - estimated to cost £26.7m in real terms in the OBC financial model, of which £9.5m is site acquisition. We believe it would be a strong candidate, subject to the matters below.
- 1.3. NLWA staff will develop an application to the fund. It is not known if the application terms would include the purchase of land for new sites. This will largely rely on an assessment of the potential contribution that the HWRC network may produce that was previously undertaken by Ramboll/AEA.
- 1.4. This approach would benefit from early progress on the transfer of HWRC sites from Constituent Boroughs to the NLWA who continue to investigate mechanisms and programmes of transfer that are acceptable to all parties. Irrespective of the timescales the Authority will also need to work closely with Constituent Boroughs to provide certainty on the above as well as on site acquisition and a communications programme related to new and enhanced sites. Further sites also need to be identified.
- 1.5. Other potential bids will also be worked on, such as bids supporting the North London Waste Prevention Plan, whether in the form of services or new infrastructure requirements for the short-term.
- 1.6. The resource consequences of producing a capital funding application can be absorbed within the core resources within the proposed medium term budgets.

2 Workstream B: Short-term and Interim Waste Treatment Arrangements

- 2.1. Members have agreed to a procurement for the short term to improve the combined transport and gate fee costs payable by the Authority for recyclables and organic waste. The work going forward is to undertake the short-term MRF and IVC capacity procurement on the basis of an approach which is compatible with the longer-term procurement. Overall, the resource

implications of work on short-term procurements are manageable within the current resources that the Authority has previously agreed for 08/09 and the draft revised budgets for 09/10.

- 2.2. It should be noted however that recent economic conditions may have an adverse effect on gate fees such that it becomes most important to have good income-sharing arrangements going forward in anticipation of improved recycle values.
- 2.3 In papers provided to the 5 August NLWA meeting it was proposed that an interim diversion contract procurement would be run to provide capacity for a period from the end of the current contract for 5 years or so. This is proposed to serve both as a potentially cheaper solution for the early years and as a hedge against any delay in the delivery of new facilities, and a separate report on this procurement is on this agenda. It is hoped that this will reduce waste treatment costs for a limited period in the interim term post-2015 by providing a more favourable gate fee than the long-term procurement solution.
- 2.4. The short-term contract work resource has been agreed in the budgets and the resources will be provided by the Strategy and Contracts team. The interim procurement work will be carried out by the procurement project team and the cost of this is being provided for the remaining of this financial year and will be budgeted for in 2009/10. Officers will ensure that the procurements and the resulting contracts are compatible.

3. Workstream C: Efficiency improvements in relation to existing waste disposal services

- 3.1. The closure of the Hendon rail transfer facility was an issue considered by the Authority in 1997 when a financial case for retaining the facility was made. The incentives to divert waste from landfill such as the landfill tax and latterly LATS have increased substantially since that date.
- 3.2. Nevertheless, there are issues with diverting further waste from landfill via rail transfer, not least the fact that the Authority is contractually obliged to deliver 175,000 tonnes to Hendon each year- only slightly less than it currently delivers. Officers are exploring the possibility of reducing this and discussions are ongoing. Early indications are that, subject to negotiation and due to changes in the patterns of waste collection (i.e. increasing recycling and composting), the Authority may seek to reduce this commitment to 140,000 tonnes or less.
- 3.3. A key consideration is any potential cost to the London Boroughs of Barnet and Camden by diverting their vehicles to Edmonton or Hornsey Street. If this situation were to arise this is something that would need to be explored with the Boroughs concerned.
- 3.4. Assuming that a significant reduction can be negotiated some detailed cost benefit analysis work will be required which can be carried out by the internal project team in conjunction with finance and technical staff from any Boroughs that might be affected.

4. Workstream D: Market development/ procurement approaches related to third party income on recycles

- 4.1. The modelling underpinning the OBC reference case assumed a prudent 'basket' price of £20 per tonne for a mixture of recyclates consigned to market after being sorted in a MRF or extracted using an MBT process. This is reflective of the longer-term market view and significantly below the shorter-term prices currently available on the market. Members will however be aware of the volatility of the market in recent weeks and months.
- 4.2. There is therefore a certain amount of 'crystal ball gazing' involved with predicting such markets. The recent economic downturn with increasing deflationary pressure on materials prices illustrates that they can be unpredictable, prone to significant volatility and likely to go down as well as up. However, there is likely to be increasing international raw material prices over the long-term. This may enable the Authority to move such assumptions upwards.
- 4.2. Clearly there would be trade-offs to be made between the security of a long-term contract and accessing the higher prices potentially available through shorter-term arrangements at various points in time. The precise benefits will depend how the Authority seeks to structure its contract.
- 4.3. Furthermore, recyclates income within collection models has been modelled based upon existing contractual arrangements which are typically based upon medium-term views of the market over four to seven years. Whilst all of the boroughs collecting materials that are predominantly source separated have entered into new contracts in the last two years it is possible that these could be improved upon over the longer-term.
- 4.4. It is clear that substantial financial economies of scale could be gained through offering all materials collected for recycling in the Authority area together to the market. If only some Boroughs were to commit to this there would still be likely to be benefits depending on the volumes involved but potentially not as great as those involved if all Boroughs committed.
- 4.5. By giving advance notice of offering large quantities of recyclates to the market and working with partners the Authority will be able to take a strategic approach in shaping reprocessing solutions that would otherwise not happen or happen on a reduced scale. This could provide better value for money and security for the Authority but also provide local economic development benefits and make viable the collection of materials that are currently not collected for recycling for the reason that the market for them is marginal.
- 4.6. It is also notable that the performance of the sorting technology in MRF's is increasing at a considerable rate. This not only has the potential to reduce contamination rates and open up the acceptance of new materials but also has the potential to improve the quality of materials produced and their market value.
- 4.7. Initial work will be taken forward with the help of WRAP and we will seek any additional funding support that may be available for market development work in order to minimise the budget cost to the Authority. Any substantive market development work is likely to be resource intensive and could only be delivered with careful prioritisation and efficiency savings elsewhere in the Authority's programmes.

5. Workstream E: Different sources of funding including potential approaches to the European Investment Bank (EIB)¹

- 5.1. Section 5.3.7 of the OBC sets out the currently proposed approach to financing the project based upon and framed by existing restrictive market conditions. If the credit market substantially improves between the present time and financial close, the Authority may be in a position to secure funding from various different sources. This may include encouraging competition of funders by bidders, retaining the Authority right to run a debt funding competition if it is not satisfied with the terms being offered. The Authority could also progress direct discussions with the EIB who may be prepared to provide part of the senior debt at an attractive rate.
- 5.2. The potential gains to the Authority of these actions are rather dependent on the efficiency of the funding solution which bidders bring forward and, in a wider context, the market in which they are operating. Based on other projects the value of EIB involvement may be £5-10 million with a similar amount potentially realisable from an efficient funding solution when compared to the 'average'. However, the reported impacts of funding competitions reflected in other sectors may have been enhanced by what is now known to be an unsustainable credit market at the time.
- 5.3. There is no history of debt funding competitions in the waste management sector and some significant administrative work (project team and external advisor) will be required to turn the proposal into a credible reality, especially in the context of competitive dialogue procedures and a separated procurement approach on fuel use. The approach would also carry the risk of creating an 'unhappy marriage' between funder and bidder that is not able to be taken forward as a solution and causing legal issues in terms of confidentiality regarding solutions brought forward by bidders.
- 5.4. Debt funding and funding competition is work that can be carried out by external advisers supported by an internal resource from the procurement team. These costs have already been factored into the Medium Term Plan (MTP) budgets. No additional costs are envisaged over and above those being budgeted in the MTP.

6. Workstream F: Higher levels of electricity income

- 6.1. The modelling underpinning the reference project assumes a long term wholesale electricity income of £36/MWh. This is based upon the income levels currently being brought forward in similar PFI/PPP projects over recent years.
- 6.2. However, even accounting for the recent downturn, the current wholesale price significantly exceeds this. Indeed, due to a recent report highlighting electricity supply capacity problems in the UK the wholesale price peaked at £133/MWh in early October. As a reflection of prices currently being offered for medium term contracts (i.e. around £60/MWh) the Authority's technical consultants have conducted an up-side sensitivity reflecting this price being achieved and the effect of this has been shown in the sensitivity analysis section of the OBC.

¹ The European Union's publicly owned long-term lending institution. It is a policy-driven bank, supporting the EU's priority objectives.

- 6.3. It is notable that prices significantly exceeding £60 appear to be achievable for even shorter term contracts at present and this may reflect a long-term trend as demand for energy supplies increases and supplies of fossil fuels are restricted or reduced.
- 6.4. Clearly, as with all markets, there is a trade-off to be made between obtaining an enhanced income over the short-term whilst recognising that markets can go down as well as up and the stability, with the potential for reduced income overall through risk transfer, of a longer-term contract. It is also worth noting that, any 'windfall' associated with additional electricity income in the future may not be fully or even partially reflected back to the Authority as an income as this will depend upon the structure of the contract in terms of profit sharing arrangements.
- 6.5. Another aspect of the electricity market that the Authority and constituent Boroughs may wish to take advantage of is the opportunity for Boroughs to commit to a long term purchase of electricity at wholesale prices from the project. This would have the advantage of providing these Boroughs with cheap electricity primarily through reducing the number of intervening parties that might otherwise be involved with such as transaction.
- 6.6. Market studies would help to inform the Authority on the prospect for medium and longer term wholesale market power pricing under a variety of different scenarios as agreed with the Authority. Whilst the current market is too volatile to justify a detailed study at present knowledge of the future position with regards income streams and market based measures is ideally needed at all key stages of the procurement process. Any detailed studies of this type will be most useful to inform the competitive dialogue. Financing will be dependant upon finding efficiency savings elsewhere within the delivery of the procurement programme and other Authority work activities.

7. Workstream G: Higher levels of heat income

- 7.1. The financial models underpinning the reference project currently do not reflect the income from the sale of heat that could be accrued from a Combined Heat and Power (CHP) or heat-use only solution but do reflect a maximised electricity generation solution.
- 7.2. The market has the potential to bring forward a considerable range of CHP solutions with different heat/electricity ratios. Some electricity output is lost as heat output is introduced and increased. It is currently assumed in the OBC models that income from the sale of heat will balance out against electricity income lost if the ratio changes between heat and electricity.
- 7.3. However, if a very high quality heat user can be accessed, the overall efficiency of a CHP solution can be up to 80% of total input energy used, with 20-25% comprising electricity and the rest being heat output with a corresponding increase in income. Such a solution might be an industrial-type user with constant synchronised electricity and heat use or a good-quality heat-use network.
- 7.4. Whilst Mayoral and national policy support the establishment of good quality district heating networks in London, this will take some time to be in place. Furthermore, because of the structure of the project, so that there is no

proposal in the reference project for capital build, no capital expenditure has been included in the project for linking a fuel use plant to a district heating network. Therefore, whilst additional income could be generated, under circumstances where the heat-use is via a district network that does not already exist or is distant without an existing linkage, it would need to be balanced against considerable capital expenditure.

- 7.5. If a single proximate high quality heat user were able to be accessed, this cost would be much lower and it could reasonably be expected that a significant income for the project would be accrued. This would also represent a particularly smart carbon solution made possible by the split procurement and may therefore be able to access other forms of income associated with the nature of the solution. Again, the amount of any direct financial benefit reflected to the Authority will depend on future negotiations around the contractual structure.
- 7.6. Whilst inherently difficult to predict for reasons set out above the Authority will seek to understand market conditions at each stage of the procurement process. This would be especially useful during competitive dialogue. Any specific market study will be dependant upon finding efficiency savings elsewhere within the delivery of the procurement programme and other Authority work activities.

8. Workstream H: Fiscal measures relating to renewable energy and carbon trading

- 8.1 There is currently a EU wide Carbon trading scheme for intensive energy using industries and one proposed to begin in 2010 for less energy intensive undertakings including local authorities. Both do not take into account whether energy is generated from renewable sources but may benefit the project if it, for example, facilitates a good quality CHP solution.
- 8.2. The chief policy mechanism for achieving an expansion of renewable energy generation is the Renewables Obligation (RO), which requires the electricity supply chain from generators to final suppliers to obtain a specified and increasing proportion of their electricity from renewable sources or to pay a buy-out price.
- 8.3. The reference project assumes an income from the sale of certificates from the generation of renewable energy (Renewables Obligation Certificates or ROC's) from the project to obligated companies. Whilst relatively prudent the prices assumed (£35MWh) are reasonable within the current policy framework. However, the UK is obligated by a EU target to generate three times more than current policies are likely to achieve by 2020.
- 8.4. The Energy Act, which received Royal Assent on the 27th of November reforms the RO scheme leading to potentially more income from this source. It takes the obligation levels substantially further than at present which will progressively lead to an increasingly high demand for ROC's, increasing their value and income from this source to the project until supply eventually catches up with demand. It also extends the scheme from 2027 to 2037. The government intends to have the enhanced RO programme in place in time for the 2009/10 financial year.

- 8.5. Another source of benefit associated with the potential solution is the Enhanced Capital Allowance (ECA) Scheme. This allows the cost of an investment in designated energy-saving plant and machinery to be written off against the taxable profits of the period in which the investment is made. This scheme will in future extend to plant and machinery connected with the thermal treatment of Solid (or Secondary) Recovered Fuel of the type that would be produced and treated in the Authority's reference project.
- 8.6. It is envisaged that the internal resources within the procurement team will monitor relevant governmental initiatives that will drive income that can be generated from sources such as ROC's and carbon trading. In addition, the internal team resources will explore the financial advantages that can be leveraged from ECA. External advisers will be invoked as and when required to support the internal team resources on any specialist area. Costs for the advisers have been budgeted in the Medium Term Projections.
- 8.7 We would expect work related to the beneficial fiscal measures to be an increasing focus of the lobbying work that the Authority has agreed to be undertaken.

9. Workstream I: Waste composition analysis

- 9.1. This element of the programme is described in the main paper and in more detail in Appendix B.

10 Workstream J: Waste prevention work

- 10.1. The annual growth in municipal waste arisings across the Authority area has reduced considerably from its previous peak to around 1% per annum and indeed may be turning to an absolute reduction in the current year. Further reductions could reasonably be anticipated with an economic downturn but this factor is not the only one shown to influence waste generation. As such it is extremely difficult to measure the cost effectiveness of waste prevention initiatives.
- 10.2 Nevertheless, in line with central government targets and projections, the Authority is expecting that waste arisings growth will remain low against a background of considerable growth in the number of households whilst Constituent Boroughs will have a greater financial incentive to reduce waste than at present as costs increase. As these pressures increase, the benefits of a more extensive joint waste prevention plan than at present will also increase.
- 10,3. Work will continue to assess expenditure on local initiatives and how it can be reduced through coordination, sharing of resources and pooling of initiatives, where appropriate, at Authority level. This work stream is ongoing and is an extension of previously agreed work agreed by Members through the Waste Prevention Plan approved in February 2008.

11. Workstream K: Trade Waste

- 11.1. Cost savings can be made on a borough-by-borough basis through more effective enforcement action to ensure that any unpaid-for trade waste does not enter the household waste stream and is appropriately charged for. Action at HWRCs is highly relevant to this as they are traditionally a significant entry

point for such waste. Trade waste recycling services will also need to ensure that they do not bring additional non-recyclable wastes into the municipal waste stream. The NLWA will discuss possible steps with Boroughs technical officers and update its models in the light of trade/household waste projection updates.

- 11.3 Work is ongoing on the impact of LATS on the non-household waste charges set by the Authority to the Constituent Boroughs. The value of LATS allowances may be expected to rise as the challenge of hitting the targets increases. Together with the cost of new treatment facilities it is possible that this will have the effect of reducing the competitiveness of existing Borough trade waste collection services (private sector contractors do not have LATS allowances). Work on assessing the impact and any cost improvements is being taken forward by an 8 authority group.

12 Workstream L: LATS

- 12.1. Our ambition is that we shall always achieve sufficient diversion from landfill in order to have sufficient LATS allowances. Depending on bidder proposals there are likely to be surplus allowances in particular years. This is a potential income stream that is likely to be maximised if the Authority is prepared to trade allowances in the longer term and takes a more commercial risk position. Key to this will be the delivery of new infrastructure and significant comfort through the contract and payment mechanism that diversion performance will be delivered.
- 12.2 This is largely a potential area of improvement that needs to be considered alongside the competitive dialogue related to long term contracts. In the shorter term the key issue will be to maintain a close eye on trading and to market any surplus allowances in a timely way. This is part of the current Finance Officer role.

13. Workstream M: Minimising residual landfill

- 13.1. Increasing levels of landfill tax, increasing scarcity of landfill capacity and potential future controls on what can and cannot be landfilled are likely to make this option even more increasingly the most expensive of those available. In shaping the reference project the Authority has tried to reduce as much as possible the element of the waste stream consigned to landfill. The landfilled fraction is mainly confined to bulky wastes and similar items that cannot be processed through an MBT/AD plant and the outputs from the MBT/AD plants that are not suitable for re-blending as a fuel. These MBT/AD outputs largely include organic material that has been stabilised by the Anaerobic Digestion process (Compost-Like Output or CLO) and inert material.
- 13.2 The bulky element comprises items and materials such as furniture and DIY waste. It is notable that, in the pursuit of targets, challenging but achievable levels of reuse, recycling and composting have been assumed in the reference project from the bulky waste and HWRC waste streams. However, the Authority continues to research how these increases might be delivered, particularly through the involvement of the community sector.
- 13.3. Defra has over recent years consulted on relaxing the waste management licensing regime to allow CLO to be spread on land under waste exemptions

from management licensing within defined circumstances. However, whilst trials are underway elsewhere in the country, this has not yet been carried through. Some applications have been found for CLO outside of sending it directly to landfill, such as providing nightly cover for landfills. These inevitably have to be on land covered by a full waste management license and are extremely limited. Varying amounts may alternatively, as a stabilised material, be re-blended into the SRF produced by any MBT plants, depending very much on the nature of the market(s) secured for that SRF and the technologies involved.

- 13.4. The inert fraction is mainly comprised of glass and grit. Theoretically this is recyclable and could make a valuable additional contribution of up to approximately 4% to the constituent Borough's recycling and composting targets. However, finding a market even in low-grade uses such as construction will be a challenge. Nevertheless, the Authority intends to encourage bidders to pursue this very strongly.
- 13.5. The internal project team will continue to monitor developments under this workstream using existing resources.

14. Workstream N: Third Party Income from Rail Transport Linked to Joint Venture Consideration

- 14.1 The Authority has included the capital expenditure for a rail freight transport operation at Hendon within its reference project and is requesting PFI credits to part finance this. It is felt that it accords with Mayoral policy as it constitutes a sustainable transport solution and opens up markets, particularly in relation to SRF, that would otherwise be less viable due to their distance from some potential users.
- 14.2. It is currently proposed that the costs of and ownership over this facility will be shared with the developer behind the Brent Cross and Cricklewood redevelopment. Even given the considerable tonnages of waste that would pass through such an operation if such use were optimised, there would be considerable spare capacity and down time. It is proposed that this could be utilised to generate an income for both new joint venture partners, especially as the emphasis on rail freight grows.

15. Workstream O: Possible efficiency improvements on waste collection

- 15.1. The collection systems within the reference project are modelled at a relatively low level of detail but as they stand represent a considerable increase in expenditure as the amount of waste and the number of households grow, and as services expand in the pursuit of targets. Whilst reflected in the disposal/treatment, rather than the collection side of the affordability envelope, a very substantially enhanced education and enforcement budget is also expected at this stage to be an addition to collection costs.
- 15.2. The current understanding of the relative costs of various solutions and collection systems from Borough to Borough and over time will be significantly improved as the more detailed modelling work being undertaken by ENTEC moves forward over the coming months. In addition to refining understanding of the overall cost envelope this work will underpin the future debate about the nature of likely collection systems.

- 15.3. Leaving aside any direct savings by identifying the most cost effective solution, the use of like systems opens up further opportunities. Research indicates that densely populated Waste Collection Authority areas can save between 10 and 15% by undertaking joint procurements of collection systems with neighbouring Authorities. The Authority's technical consultants have indicated that the initial mapping exercise necessary to underpin feasibility studies into joint collection services would cost £30K per Constituent Authority that wanted to explore this option. This expenditure is expected to be made by individual Boroughs, rather than the Authority, where they wish to explore this option.
- 15.4 Even where this opportunity is not followed through there are lesser but still considerable savings to be accessed through sharing back office functions and shared procurement of capital such as bins and vehicles. Furthermore, the benefits associated with the pooling of materials to market are more likely to be felt if materials are produced to clear specifications across the board at large scale.
- 15.5. There is clear financial benefit to be gained from like collection systems across the Constituent Boroughs through a single negotiated contract that could provide economies of scale. The IAA working group is considering the issue of moving towards more 'like' systems which is reflected in the draft statement of principles.