

**The Newcastle Kerbside Recycling
Contract: the In-House Alternatives**

**Report to the Newcastle trade union
branches of Unison and the General,
Municipal and Boilermakers.**

Ecologika

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Executive summary

Options

1. This report presents two options for the in-house operation of Newcastle's kerbside recycling services:
 - ***a low cost, low capture service***, consisting of a fortnightly collection using 7 caged vehicles, similar to that proposed by SITA. The in-house option has a net cost to the Council of £0.66 per household p.a. as against £1.29 per household p.a. for SITA, a saving of £300,000 over the 5 years of the contract at the yields forecast by Cityworks.
 - ***an intensive high quality service***, based on a weekly collection, using caged vehicles and innovative, low cost, electric pedestrian controlled vehicles (PCVs). This option promises substantially higher levels of recycling than the SITA model. It would cost £3.13 per household p.a. as against a proposed Council budget for kerbside recycling of £2.43 per household p.a., an annual difference of 70 pence per household, or £70,000.

High quality option

2. The Unions favour the second high quality option for the following reasons:
 - ***achieving the targets***. It is essential for the Council to reach the Cityworks kerbside targets of 11,000 tonnes by 2005/6 if the Council is to meet the Government's statutory recycling target of 17% of household waste by that year. The risk of poor performance and undershooting the target is substantially higher for the SITA-type model than for the intensive scheme.
 - ***kick starting the shift from disposal to recycling***. It takes seriously the shift in waste management from disposal to reduction and recycling. The redirection of Government finance and incentives to waste reduction and high recycling has been clearly spelled out in the Government's recent Strategy Unit Report on Waste and the Chancellor's Pre Budget. Newcastle, with its poor record of recycling, needs to introduce imaginative, good quality recycling services as a matter of urgency, if it is to access the finance now becoming available.
 - ***moving Newcastle to the top of the European environmental and cultural league***. It fits with the new City Council plan announced in November, to make Newcastle one of the greenest and cleanest cities in Europe by becoming a zero net CO2 emissions city by 2025. A high quality kerbside recycling scheme is one of the pre-requisites of any strategy to reduce greenhouse gases and promote urban sustainability, and the option has been designed to support Newcastle's bid to become the European capital of culture as well as the sustainability goals of Going for Growth.

- **creating jobs.** Intensive recycling will create an estimated 42 direct jobs as against 28 for the low capture option, as well as jobs in publicity and promotion.

Low cost, low capture option

3. If the Council decide to choose the low level service route, the first in-house option is clearly preferable to the SITA bid for the following reasons:
 - it offers substantial financial savings to the Council at the capture levels forecast by Cityworks
 - it provides good quality jobs for collectors, one of the requirements for successful recycling. The SITA option is likely to involve a minimum 30% cut in pay and conditions.
 - it involves a close partnership with the community sector, which is another requirement for successful recycling, and which will be difficult to achieve with a SITA-run service given SITA's poor reputation in the community sector.
 - it limits SITA's consolidation of control over Newcastle's waste infrastructure which weakens the Council's competitive options in the waste management market.
 - it increases the potential for raising external funds for the Newcastle scheme, particularly from those sources geared to support innovative partnerships and community recycling initiatives.

Costings

4. The outline case for an in-house recycling service was presented in the Ecologika report submitted by the Unions in late October 2002, a summary of which is attached as Appendix 1.
5. Cityworks questioned the estimates in that report of bulking and transport costs and of material income, and further questioned the possibility of finding suitable depot space in Newcastle that would be available in time for the launch of the service in April 2003. Their own in-house cost estimates relied on a SITA offer of a gate fee of £20 per tonne to cover the costs of bulking, transporting and sales net of income. This left the in-house bid 37% more expensive than SITA's and it was on this basis that the Cabinet decided to go with the SITA option as the lowest tender at its meeting on November 20th.
6. Work undertaken by the Unions since then has confirmed their October cost estimates. The main operational requirements for bulking, transport and sales have

been agreed in line with a schedule for an April 2003 launch of the programme. In particular:

- A depot has been identified and has been independently assessed by a consultant with thirty years experience of operating recycling depots. A schedule of necessary equipment has been prepared and agreement reached with the company concerned for an April start. The budget is in line with the original estimate of £150,000 p.a. given in the Ecologika and SWAP reports.
 - 5 year sales contracts with guaranteed minimum prices have been agreed with two major processors. These contracts would involve the processors bearing the cost of transport to the mills concerned. The ex works sales prices agreed are sufficient to cover the depot costs and the guaranteed income to Newcastle City Council over the 5 years of the contract.
7. These agreements underpin the financial savings offered by the in-house alternative, and remove the market risk which has been a major concern for Cityworks with the in-house alternative.

A phased high quality service

8. The Unions remain concerned at the risk of poor performance by the proposed fortnightly service, and the dangers of not meeting the Cityworks targets. They have discussed the most appropriate service to achieve the targets with leading recycling operators and visited schemes relevant to Newcastle's conditions.
9. On the basis of this work, the report proposes a programme for intensive recycling which takes account of the Council's budget constraints, and has the flexibility to expand as budgetary support and grant funding allows. It is in two phases:
- (i) in year 1 a fortnightly collection service, using caged vehicles for 86,000 households as planned by Cityworks, using a driver plus one, supplemented by weekly pedestrian controlled vehicle (PCV) collections for 14,000 households in inner city areas
 - (ii) from year 2 the PCV service will be expanded to 50,000 households, and the caged vehicle rounds will be converted to weekly collections at a pace dictated by the Council's budgetary provisions and external grant funding.
10. The Unions have secured an option on four PCVs for an April 2003 launch, and have reached agreement with experienced operators of recycling PCVs to advise the Council and community sector on the start up of this part of the service. Similar start up advice has been agreed for the caged vehicles.

Partnership

11. In order to limit the Council's risk and promote a close partnership between Cityworks and the community sector, the unions propose the following structure for the in-house operations:
 - recycling collection would be operated through a new Cityworks recycling section, advised by a panel representing council and community interests.
 - recycling jobs would be openly recruited at levels of established Council pay and conditions
 - bulking, transport and sales of recyclate, would be contracted to the community sector, which would guarantee payments to the Council averaging £10 a tonne of recyclate collected over the 5 year period.
 - there would be a service level agreement between the community sector and the Council for the delivery of promotional support for kerbside recycling.

12. Agreement has been reached with the community sector, backed by established companies in the Community Recycling Network, to set up a Newcastle Community Recycling Consortium (the NCRC) to take responsibility for bulking, transport, sales and promotional support. The NCRC would be a company limited by guarantee, whose aims would be to promote waste minimisation and recycling in Newcastle, and whose profit would be re-invested in support of those aims.

13. Budgets have been drawn up on the basis of the above arrangements. These confirm that:
 - the in-house low level option would save the Council £315,000 at the Cityworks target level of capture,
 - the high quality service could be delivered for a net cost to the Council averaging £313,000 over 5 years (£373,000 if promotion is included), as against the budgetted cost of a low level service of £240,000 p.a.. This should be compared to the industry guideline of £10 per household for a weekly service, which in Newcastle's case would be £1 million p.a.

Conclusion.

14. The Cabinet took its decision to award the kerbside recycling contract to SITA on the grounds that it offered the lowest cost option to achieve significant recycling, without market risks. Since November 20th there have been five significant developments:

- Work on behalf of the unions confirms that their options offer better value for the Council, the workforce and the environment than the SITA bid, and provide the Council with guarantees against material price fluctuations.
 - The publication of the Government's Strategy Unit report on Waste on November 27th confirms the importance the Government attaches to recycling, and raises the recycling targets to 45%. This confirms the unions' view that the expansion of source separated kerbside collection of dry recyclables and organics cannot but have a profound effect on residual collection jobs.
 - The Chancellor's pre-Budget statement announced a further steep escalation of the landfill tax which alters the relative costs of disposal and recycling assumed in the earlier Cityworks estimates. It also identifies increased sources of funds to promote recycling.
 - The joint Newcastle/North Tyneside bid for DEFRA funds to support kerbside recycling was turned down, reflecting the Government's reluctance to support low level/low capture recycling rather than ambitious, high quality schemes as in Greater Manchester.
 - The announcement of the Newcastle 'zero net emissions' programme and its aims to make Newcastle one of the cleanest and greenest cities in Europe places an added premium on the early introduction of high quality recycling.
15. The SITA bid offers a low quality service, based on cut price jobs, from a company concerned primarily with disposal and having a poor reputation for recycling. The unions' in-house options are consistent with national goals, with Newcastle's environmental, social and cultural aspirations, and with the Council's long standing commitment to the creation of good jobs and high quality services.
16. This report shows that there is no case for the privatisation of recycling. Rather it calls on Cityworks and the Council to take responsibility for the establishment of the new service and demonstrate how an innovative public sector, in partnership with the community, can deliver a higher quality, lower cost service than any of the bids from the private sector.

The Newcastle Kerbside Recycling Contract.

1. The Newcastle City Council cabinet considered a paper from the Director of Cityworks on November 20th 2002 which recommended that the cabinet accept the tender for the recycling contract from SITA plc on the basis of a fortnightly kerbside collection of 5 materials from low rise houses. The cabinet agreed this recommendation.

2. The reasons given in the report for accepting the SITA bid were six-fold:
 - The SITA bid was not only the lowest private sector bid, but was very substantially below the cost of an in-house service (which was estimated at £836,000 p.a. above existing budget provision)
 - The use of an external contractor would substantially reduce the risk of fluctuating material markets that the Council would face were it to provide an in-house service.
 - An external contractor would allow the Council to avoid the initial capital and set up costs associated with the new service
 - The proposed contract would not preclude the Council from providing the service at the end of the 5 year contract
 - The contract would not threaten existing Council employees with job loss, and assurances had been given that the new service would not affect the frequency and numbers of domestic refuse rounds.
 - The new service would contribute to the delivery of Going for Growth by increasing sustainability and improving the City's image.

In short, Cityworks argued that a contract with SITA would be preferable to an in-house bid because it was cheaper, easier to finance and less risky, and at the same time posed no risk to jobs, nor to the Council's long term options for the service.

3. The two major unions involved, the GMB and Unison, had earlier raised major concerns about the proposal to contract out the recycling service. They argued that:
 - An in-house bid would provide better value for the Council than the SITA alternative, both in terms of costs and of the quality of service provided
 - The long term shift of waste management to source separated collection for recycling and composting would mean that the service for the collection of residual dustbin waste would inevitably be affected, with a shift in jobs from the old to new services, and that the Councils, residents and the unions all had an

interest in ensuring that the new service was based on high quality service standards and labour conditions.

- Giving the recycling contract to SITA would further strengthen SITA's market power in relation to the Council, giving control of the emerging recycling infrastructure to a company which already controls the City's two major transfer stations and the development rights of treatment facilities by virtue of the terms of the long term recovery contract.
4. In October the Unions commissioned a report by the environmental consultants Ecologika to examine the first of these concerns in greater detail. The report raised serious questions about the ability of the recycling proposals underlying the SITA and the Cityworks in-house alternatives to deliver a quality service. It also presented evidence, on the basis of recycling elsewhere in the UK, of why an in-house bid would be cheaper and better value than the SITA proposal. A summary of the report is attached as Appendix 1.
 5. This report was submitted to and discussed with Cityworks at the beginning of November. What emerged from these discussions was:
 - the absence in the proposed SITA recycling contract of penalty clauses for the delivery of the tonnage targets. The proposed penalty clauses were confined to narrow service performance standards (such as the number of missed collections). Since SITA would be paid to dispose of tonnages which they had failed to recycle, the incentives for SITA to meet the tonnage targets are weaker than the increase in costs and commitment necessary to meet those targets.
 - little difference in the view on the collection costs of the proposed service, but a wide discrepancy between Cityworks and the unions on the costs of bulking, transporting and selling materials associated with an in-house bid.
 - no agreement on the unions' proposals for the minimisation of risks to the Council through income guarantees
 - consequently sharply different views on the better value of the in-house bid compared to that of SITA.
 - 6 Cityworks presented their arguments in favour of SITA and against an in-house bid first to the Recycling Working Group, and then to the Council's Cabinet, where the recommendation to accept the SITA offer was approved on November 20th. In subsequent discussions with the unions, Cityworks agreed, however, to delay the signing of an agreement with SITA until the end of January 2003, to give time for the unions to further develop their proposals for an in-house option, and to re-present the issue to the Recycling Working Group if there were developments of material relevance to the decision. This extension also had the advantage of allowing the Council to take into account the report of the Government's Strategy Unit's Review

of Waste Strategy, and the Chancellor's Pre Budget statement, both of which were made public on November 27th. The present report addresses these issues.

Financial advantages of an in-house bid.

7. The first major issue is the costing of an in-house bid. Table 1 summarises the differences between Cityworks and the Unions on the costs of a fortnightly kerbside collection from 100,000 households for the 5 years between 2003/4 and 2007/8.

Table 1. SITA and alternative in-house bids for 5 years (2003/4-2007/8).

| | Cityworks In-house | SITA | Unions In-house |
|--|--------------------|-----------|-----------------|
| Labour | 3,023,045 | | 3,023,066 |
| Vehicle & transport | 593,038 | | 593,075 |
| Bins | 198,000 | | 198,000 |
| All collection costs | 3,814,084 | | 3,814,141 |
| Bulking, handling and market provision | 1,147,713 | | (794,900) |
| Total costs | 4,961,797 | 3,629,069 | 3,019,241 |

Source: For SITA & Cityworks In-house bid see Cityworks, Kerbside Collection Tender Bid and In-house Comparison, 4th November 2002.

These figures are based on the tonnage forecasts used by Cityworks for the purpose of their comparisons, and use similar assumptions about inflation, the composition of the workforce and levels of pay, vehicle costs and back up. Three things are highlighted by this table:

- collection costs are effectively the same for the two in-house alternatives
 - there is a £1.943 million difference in the estimated costs of bulking, handling and market provision, with Cityworks estimating them as a net cost of £1.148 million, while the Unions forecast that there would be a net contribution of £0.795 million.
 - the Union in-house bid would be more than £610,000 less than the SITA alternative, and would almost exactly equal the prospective savings on disposal costs by diverting 52,000 tonnes of waste to recycling.
8. In their cabinet submission, Cityworks comment that their in-house comparisons represent £836,000 per year additional cost over the current operational budget provision. This would amount to £4.18 million over 5 years (without inflation). It is not clear why this basis of comparison has been used rather than that used for estimating the cost to the Council of the in-house tender. Using the latter, Table 2 shows the incremental costs to the Council of the alternatives shown in Table 1.

Table 2. Net cost to Newcastle City Council of the SITA & alternative in-house bids for five years (2003/4-2007/8).

| | Cityworks In-house | SITA | Unions In-house I |
|--|--------------------|-------------|-------------------|
| Total net recycling costs | 4,961,797 | 3,629,069 | 3,019,241 |
| Disposal savings | (2,715,596) | (2,715,596) | (2,983,620) |
| Total direct service cost to the Council | 2,246,201 | 913,473 | 35,621 |
| Publicity | 300,000 | 300,000 | 300,000 |
| Total cost to Council | 2,546,201 | 1,213,473 | 335,621 |

9. The following points should be noted from this Table:

- the Cityworks in-house option would involve extra costs to the Council of £2.55 m, more than twice that of the SITA bid.
- It is proposed that the estimated deficit on the SITA bid of £1.213m be covered by a bid for funds from the Council's budget (£198,000 for 2003/4)
- the SITA and Cityworks in-house bids both under-estimate the disposal savings to the Council. Using the Cityworks assumptions made in their September 16th 2002 presentations would lower the total cost to the Council by £0.258 million.¹
- the Unions in-house bid shows direct costs that closely match the disposal savings earned by recycling, and a total cost to the Council of some £67,000 p.a. which is one quarter of the sum that Cityworks has indicated would be necessary to cover the costs of the SITA bid.

On the basis of forecasts used by Cityworks for its contract decisions and budget submissions, it is clear that the Unions in-house option represents a major potential saving for the Council and best value from a financial perspective. The details are shown in Tables 3 and 4 which compare the Union and SITA bids.

¹ In their September 16th presentation, Cityworks assumed that the landfill tax would escalate in steps of £1, £4, £1, £1, £1 for the 5 years of the contract leading to savings (over and above those from avoiding the costs per tonne in the disposal contract) of £310,000 over the 5 years. The November Cityworks report sharply cut these forecast landfill tax savings. They assumed that the level of landfill tax would increase to a level only £1 above that included in the disposal contract, leading to a saving of £52,000 as the result of the 52,000 tonnes to be recycled. The proposed escalation of the landfill tax by £3 p.a. from 2005/6 announced in the Chancellor's Pre-Budget statement on November 27th 2002 confirms the September Cityworks forecast. Recycling 52,000 tonnes over 5 years would save £320,000 in incremental landfill tax. The Union in-house bid builds in the £3 pa escalator from 2005/6.

Table 3 Union In house low intensity bid/initial version

| | 2003/4 | 2004/5 | 2005/6 | 2006/7 | 2007/8 | Total |
|--|----------------|----------------|----------------|-----------------|-----------------|------------------|
| Tonnes | 6,000 | 10,000 | 11,000 | 12,000 | 13,000 | 52,000 |
| Costs | | | | | | 0 |
| Crew @ 58,319 x 7 | 408,233 | 420,480 | 433,094 | 446,087 | 459,470 | 2,167,364 |
| Hol/sick cover | 81,647 | 84,096 | 86,619 | 89,217 | 91,894 | 433,473 |
| Training | 7,911 | 8,148 | 8,393 | 8,644 | 8,904 | 42,000 |
| Supervisor + call centre | 71,618 | 73,766 | 75,979 | 78,259 | 80,607 | 380,229 |
| Total employee | 569,408 | 586,491 | 604,085 | 622,208 | 640,874 | 3,023,066 |
| Transport @ 13,556 x 7 x 1.25 cover | 118,615 | 118,615 | 118,615 | 118,615 | 118,615 | 593,075 |
| Bins | 39,600 | 39,600 | 39,600 | 39,600 | 39,600 | 198,000 |
| Total collection costs | 727,623 | 744,706 | 762,300 | 780,423 | 799,089 | 3,814,141 |
| Collection costs per tonne | 121 | 74 | 69 | 65 | 61 | 73 |
| Depot £120000+£25 per tonne | 150,000 | 170,000 | 175,000 | 180,000 | 185,000 | 860,000 |
| Revenue | | | | | | 0 |
| Paper @ 63% x £35 pt | 132,300 | 220,500 | 242,550 | 264,600 | 286,650 | 1,146,600 |
| Glass @ 31.5% x £15 pt | 28,350 | 47,250 | 51,975 | 56,700 | 61,425 | 245,700 |
| Al cans @ 0.4% x £650 pt | 15,600 | 26,000 | 28,600 | 31,200 | 33,800 | 135,200 |
| Steel cans @ 2% x 20 pt | 2,400 | 4,000 | 4,400 | 4,800 | 5,200 | 20,800 |
| Textiles @ 1% x £100 pt | 6,000 | 10,000 | 11,000 | 12,000 | 13,000 | 52,000 |
| Plastic bottles @ 2.1% x £50 pt | 7,800 | 13,000 | 14,300 | 15,600 | 16,900 | 67,600 |
| Total revenue | 192,450 | 320,750 | 352,825 | 384,900 | 416,975 | 1,667,900 |
| Tonnes of material | 6,000 | 10,000 | 11,000 | 12,000 | 13,000 | 52,000 |
| Ave revenue per tonne | 32.075 | 32.075 | 32.075 | 32.075 | 32.075 | 32.075 |
| Income less depot costs | 42,450 | 150,750 | 177,825 | 204,900 | 231,975 | 807,900 |
| Collection costs less net income | 685,173 | 593,956 | 584,475 | 575,523 | 567,114 | 3,006,241 |
| Disposal cost savings £ per tonne | 42.2 | 52.06 | 56.57 | 61.11 | 65.71 | 57 |
| Total disposal savings | 253,200 | 520,600 | 622,270 | 733,320 | 854,230 | 2,983,620 |
| Total net cost less disposal savings | 431,973 | 73,356 | -37,795 | -157,797 | -287,116 | 22,621 |
| Council guaranteed tonnage income | 30,000 | 87,500 | 107,500 | 127,500 | 147,500 | 500,000 |
| Net Council recycling costs | 697,623 | 657,206 | 654,800 | 652,923 | 651,589 | 3,314,141 |
| Recycling costs less disposal savings | 444,423 | 136,606 | 32,530 | -80,397 | -202,641 | 330,521 |
| Income less Depot & Council payments | 12,450 | 63,250 | 70,325 | 77,400 | 84,475 | 307,900 |

Summary:

In Sita bid Council pays c£70 a tonne average and saves £57 a tonne disposal costs.
 In house bid, collection costs of £73 pt, less £16 net income (=£57 net), and disposal savings of £57 pt, hence neutral for Council in terms of costs. If NCR takes risk and pays Council £5 pt plus further £15 over 7500 tpa, then 5 year costs to Council £331k.

Table 4 Sita bid

| | 2003/4 | 2004/5 | 2005/6 | 2006/7 | 2007/8 | Total |
|--|----------------|----------------|----------------|----------------|---------------|----------------|
| Tonnes | 6,000 | 10,000 | 11,000 | 12,000 | 13,000 | 52,000 |
| Tender costs per tonne | 65.14 | 67.09 | 69.10 | 71.18 | 73.31 | 69.79 |
| Total costs | 390,823 | 670,913 | 760,145 | 854,126 | 953,062 | 3,629,069 |
| Less disposal cost savings £ per tonne | 42.2 | 52.06 | 56.57 | 61.11 | 65.71 | 57 |
| Total disposal savings | 253,200 | 520,600 | 622,270 | 733,320 | 854,230 | 2,983,620 |
| Net cost to Council | 137,623 | 150,313 | 137,875 | 120,806 | 98,832 | 645,449 |

10. Cityworks have disputed the robustness of the Unions figures on the crucial question of the costs of bulking, handling and market provision. During the discussions in early November they were of the firm view that their estimated net costs of £1.1 million were more accurate than the Unions assessment of £0.8 million net income.

Bulking, transport and material sales.

11. The Cityworks estimate of £1.1 million post-collection costs of recycling for the in-house bid is based on gate fee of £20 per tonne, with a 3% pa rate of inflation, which they negotiated with SITA. Under this arrangement, Cityworks would deliver the collected recyclates to a SITA depot (probably SITA's existing depot in North Tyneside), and SITA would arrange for the bulking, transporting and sale of the material to processing plants. SITA would receive the sales value of the materials plus £20 a tonne from Cityworks.

12. During the discussions with the Unions in early November, Cityworks produced estimates of these costs were they to be organised in-house, which are summarised in the first column of Table 5.

Table 5 Costs of bulking, transporting and selling materials £s per tonne

| | In-house Cityworks | In-house contract with SITA | SWAP | In-house unions |
|-------------------------|--------------------|-----------------------------|-----------|-----------------|
| Depot costs | 58.52 | | 15.79 | 16.54 |
| Transport to processors | 30.21 | | 12.71 | - |
| Contamination/rejection | 2.46 | | - | - |
| Material sales | (31.92) | | (32.09) | (31.83) |
| Total (per tonne) | 59.27 | 22.07 | (3.59) | (15.29) |
| Total for 52,000 tonnes | 3,082,000 | 1,147,713 | (186,680) | (794,900) |

Sources: Cityworks, Kerbside Collection, 4th November 2002; SWAP figures from Report for Ban Waste, September 2002, Appendices, Tables 4 & 5; Ecologika survey.

Notes.

- Cityworks estimates are based on the 5 year forecasts of 52,000 tonnes collected. Depot costs include £1.98 million for site purchase and construction of depot, a capital item which the presentation implies is depreciated over 5 years, plus £1.06 m. for depot operations, or £20.44 per tonne. Material sales are estimated at £32 per tonne delivered at the processing plant, from which a 5% deduction of paper and glass sales is made for contaminated materials, plus the cost of landfilling the rejects. Transport costs are estimated at £1.57 million.
- The SWAP estimates are made for an annual collection of 7,463 tonnes. Depot costs are assumed to be fixed at £155,000 p.a. (with an annual 3% increase for inflation) for throughputs upto 13,000 tpa, and transport costs and sales income per tonne to remain constant (with 3% p.a. increase for inflation) with variations in tonnage.
- The in-house union forecasts, are based on a 5 year agreement for depot services for 52,000 tonnes, and on prospective sales value of materials which are principally determined by 5 year contracts for the sale of paper and glass.
- The Cityworks and SWAP material sales values are estimated on the price per tonne delivered to the mill; the unions estimate is made on an ex works basis.

- Neither the SWAP nor the unions' forecasts include a deduction for contamination, since the system of source separated kerbside collection has contamination rates of only 0.5%, and the recycling volumes relate to recyclable materials, excluding any contaminants.

Cityworks estimated bulking and transport costs at £89 per tonne, with income at £32 per tonne for material delivered at mill. The net cost (including an allowance for contamination) is £59 per tonne. In comparison the SITA offer which is estimated at £22 per tonne would result in a saving to the Council of nearly £2 million for the 5 years of the contract. Were depot, transport and sales to be organised in-house, the net cost would be £3.08 m. which added to the collection costs of £3.81 million give an overall cost of the in-house option of £6.89m, as against £4.96m if SITA undertake bulking, transport and sales, and £3.63m if SITA take on the recycling contract as a whole.

13. Cityworks further commissioned a report from the Council's Property Services department which indicated that irrespective of the cost of a depot, suitable space was not available either on Council property or in the private property market. Even were sites to be available they would require planning permission, and might well also need an Environmental assessment. This would introduce significant delay into the launch of any recycling scheme. The report concluded:

“We have determined that there is not an existing waste recycling facility of the size identified available in Newcastle at the present time. Land capable of developing a waste recycling plant is competing with a number of other uses, both economically and environmentally. As the city is undergoing significant change through a number of property led initiatives, very little land lies fallow and where it does, schemes are already being planned for future development. It is our opinion that to find a suitable site at an effective price will be very difficult indeed.”²

14. The following points should be noted in relation to the Cityworks estimates for bulking, transport and sales:

- The Council's Benwell transfer station and CA site which has been leased to SITA for the duration of the recovery contract, is large enough to accommodate the bulking of recyclate, in addition to any demands made on it as a transfer station for the expected tonnage of unsorted municipal waste which would remain after the achievement of the levels of recycling and source separated municipal bio-waste outlined in the Government's Strategy Unit Report and foreshadowed in the EU Commission's draft of the Bio-waste Directive.
- The depreciation period of 5 years for the Citiwork's estimated cost of £2 million for the purchase and construction of a depot is not warranted by the expected economic life of such a depot.

² Michael Black, Property Services, "Appraisal of Buildings and Sites available in Newcastle suitable for Transfer Station Processing Dry Recyclable Material." 1st November 2002

- The unions' survey of private sector sites available to serve as a depot for bulking Newcastle recyclates indicate a level of cost (both for purchase and lease) which produce a result close to that identified in the SWAP estimates.
- The unions have identified two licensed transfer stations which would provide accessible facilities for the bulking of recyclates, and an operator agreeable to undertake the work for the sum indicated in column 4 of Table 5. A detailed assessment of the favoured depot has been made by a specialist in bulking and sorting recyclates, and his costs confirm the robustness of the union estimates. These are less than a third (28%) of the sum estimated by Cityworks.
- The CRN estimates for the market costs of materials transport are close to those in the SWAP report, but their material price forecasts are made 'ex-works', so that the processor is responsible for the transport.
- The unions through the sales office of the Community Recycling Network and Avon Friends of the Earth have obtained quotations for ex-works prices. Those for paper and glass would be for five year agreements to supply tonnages within the potential ranges that could be achieved in Newcastle. Together these agreements underwrite 84% of the forecast income shown in column 4 of Table 5 (£1.392 m out of a total of £1.655 m). The remaining materials have been priced at estimated long run levels (ex works) and are forecast to yield £262,600 over 5 years. This means that with the sales contracts for paper and glass alone, the net income from bulking, transport and sales would be £532,000, and the total cost of the in-house bid would be £3,281,841 in column 3 of Table 1.
- The arrangement to pay SITA a gate fee averaging £22 a tonne over five years, would give SITA a surplus approaching £2 million over and above the market rates reflected in column 4 of Table 5.

Conclusion on bulking, transport and material sales

15. The work undertaken since the meeting of November 4th has born out the estimates initially made for the unions in the October Ecologika Report. The depot costs according to the formula agreed with the depot operators are close to those of the SWAP report. Prospective income, however, is considerably higher, with the quoted paper price (that accounts for 69% of total income) 10% higher than the October Ecologika forecast.
16. In terms of the target tonnages on which Cityworks have based their calculations, the in-house collection option, with the depot and material sales functions undertaken through the community sector, is clearly Best Value in financial terms.

Capital finance.

17. The major capital items are vehicles, plastic recycling boxes, and bulking facilities and equipment. The vehicles and recycling boxes are all available on lease. The bulking facilities and equipment will be provided by the depot contractor. The new service can therefore be established with no call on Newcastle City Council's capital budget.

Risk

18. The third objection by Cityworks to an in-house service is that it would leave the Council bearing risks which would otherwise have been born by SITA. They have identified three types of risk:

- a) *market price risk*. This was the risk singled out in the Cabinet submission. In the union option this risk would be minimised by the negotiation of long term contracts with guaranteed prices, with the residual risk being born by the community sector. The proposal is that the Council should be guaranteed an income for each tonne collected, with the community sector being responsible for bulking, transport and material sales.
- b) *contamination*. The kerbside separation of materials allows collectors to control and minimise contamination, with schemes of this kind showing contamination rates of less than 0.5% of all materials collected. Higher rates quoted by Cityworks for kerbside collections (not bring banks) are those resulting from the collection of mixed recyclables (which are then sorted at a central Materials Recovery Facility – or MRF), where collectors are not able to exercise quality control, and where there is a measure of cross contamination between materials.³ The tonnage targets in the union/community submission are net of any contamination.
- c) *poor performance risk*. The most serious risk is that of service performance failure. The costs of failure to the City Council are twofold:
 - (i) failure to capture the target tonnages puts in jeopardy Newcastle's ability to meet the Government's statutory recycling targets of 10% of household waste by 2003/4 and 17% by 2005/6. With 3% growth in household waste, the Government targets require the capture of 14,000 tonnes by 2003/4 and 25,000 tonnes by 2005/6. Newcastle currently recycles less than 5,000 tonnes (3.8%). An expansion of bring banks and CA site recycling will not make up the shortfall. The majority of the diversion will have to come from the kerbside collection of dry

³ For contamination rates for source separated kerbside collections in Bath, Bristol, Daventry and Lambeth, compared to mixed collections see The Community Recycling Network, Maximising Recycling Rates, Bristol, 2002, Table 1 p.4

recyclables.⁴ The Cityworks target of 11,000 for its kerbside scheme for 2005/6 is modest in this context. Failure to achieve even this projected level would seriously threaten the Council's capacity to meet its statutory targets.

- (ii) In November the City Council announced a plan to become one of the greenest and cleanest cities in Europe by adopting the goal of zero net emissions of CO₂ by 2025. The programme aimed to "excite and enable people and businesses to take action on climate change" and to reinforce Newcastle's cultural and environmental identity in a bid to become the European Capital of Culture. Given that recycling makes a significant contribution to the reduction of CO₂ emissions and global warming, failure to deliver a successful recycling scheme would throw into question the integrity of Newcastle's programme and the Council's broader sustainability goals in the context of Going for Growth.⁵ As the Government's Strategy Unit makes clear, a well run kerbside collection of dry recyclables is a key part of a strategy for sustainable waste management. It is a primary building block of any urban sustainability strategy. This places a premium on the introducing a high quality/high capture kerbside scheme

19. In the light of these costs of performance failure there is a high risk that the proposed SITA service as it stands will not achieve the Cityworks tonnage targets. The reasons are as follows:

- Recycling performance elsewhere in the UK suggests that fortnightly collections in areas with similar social and demographic composition will yield low rates (SWAP estimates on the basis of national recycling data an average capture rate in Newcastle of 53.7 kg per household p.a., which means an overall tonnage of 5,370 p.a. for the 100,000 households provided with the service, and a five year yield of only 27,000 tonnes)⁶
- There are no penalties for low capture rates in the proposed recycling contract with SITA. Cityworks argue that the collectors cannot be held responsible for the quantity of material set out by households, only for failures to collect what is put

⁴ The Council intends to increase recycling on its CA sites by introducing a new incentive system to operators, but currently Newcastle collects a low proportion of its household waste through CA sites (14%) and even if it increased its capture rates from the current 9% to 40% in 2005/6, the Cityworks dry recyclable targets would still need to be met to reach the Government's statutory targets.

⁵ One quarter of Greenhouse Gas emissions stem from the life cycle of materials. Any substitution of the demand for primary materials by the recycling of secondary materials and discarded products contributes significant savings in energy and the resulting emissions. The US Environmental Protection Agency estimated that the five materials that make up nearly half the municipal waste stream (paper, steel, aluminium and plastic) consume in their production one third of all manufacturing industry's energy consumption. Recycling these materials rather than disposing of them by landfill or incineration would result in savings of 0.8 metric tonnes of carbon equivalent (MTCE) for every tonne of waste diverted.

⁶ SWAP comments "The estimates of collection are based on current standard practice of local authorities in Britain. We recognise that the levels of collection...are not as high as outlined in BAN WASTE's reports. These higher levels are urged by the new Strategy Unit report 'Waste Not Want Not'. " For the basis of SWAP's estimates on correlations of recycling with levels of deprivation see Community Recycling Network, Maximising Recycling Rates, Bristol, 2002, pp 2-7.

out. This does not reflect recycling experience elsewhere: capture rates are significantly affected by the way the service is delivered, by information given by collectors to householders, and by collectors' management information systems. There are significant costs in developing a high quality service, and unless penalties or marginal rewards are high, private tenderers will tend to opt for a low level service which 'skims' an area rather than aims for high targets. This is one reason that those tendering for the Newcastle contract proposed similar 'low capture' systems.

- For SITA the Newcastle contract's incentives to increase recycled tonnage are lower than for other companies, since tonnage shortfalls in recycling are handled as part of SITA's disposal contract for which the Council is shortly to pay £51 per tonne.
- SITA are primarily a disposal company not recycling specialists and give low priority to recycling. They have been poor performers elsewhere, and have been penalised as a result.⁷

20. In short, there are significant problems with the recycling system proposed by SITA, and mirrored in the Cityworks in-house bid. But even within the framework of this fortnightly system, the risk of failure is considerably higher for the SITA than for the in-house option. An in-house bid, with a properly paid, high quality workforce, working closely with the community sector, would be likely to deliver higher capture rates than SITA. In other words, the risks of service failure are significantly lower for an in-house option than for SITA.⁸

21. The overall conclusion is that the in-house bid offers better value not only in financial terms, but in terms of service provision. Under the proposed union scheme, the Council is protected from market risks. The only significant risk is that of service failure, and that is considerably higher with SITA than with an in-house service.

Service quality.

22. If there is no Best Value case for proceeding with the SITA bid as against the in-house alternative, there remains a question as to whether the in-house option should adopt the 'low capture' recycling model proposed by SITA. The unions are of the firm view that this is not the way forward. If the City is to take recycling seriously, it should not adopt a system that has been shown to be a poor performer in equivalent situations elsewhere. The current proposal is setting recycling up to fail.

⁷ In Epping Forest SITA agreed to deliver a high recycling target, and cover the costs of disposal for any shortfalls. Their under-performance was such that they applied to renegotiate the contract

⁸ If there is any doubt on the risk of service failure with the SITA bid, SITA's own assessment of the realism of the targets can be tested by introducing into the proposed contract significant penalties on all tonnage shortfalls, penalties that would be high enough to provide the funding for expanding recycling in other ways.

23. The unions favour the introduction of a high quality service, designed and structured to achieve the target capture rates. In the section that follows, such a system is outlined. It has been structured so that it could build on the proposals already made, for an April 2003 start, while the additional finance for an intensive system is put in place.

The Union/Community proposal

24. The Newcastle proposal has five principal features:

- it provides a weekly rather than a fortnightly collection
- it uses small pedestrian controlled vehicles for the inner city areas, which offer both higher capture rates and lower costs; supplemented by caged vehicles similar to those proposed by Cityworks for the less dense sections of the City
- it gives the community sector a central role in the promotion of recycling and in the organisation of the bulking, transporting and sale of the materials (schemes in which the community sector has played a central role have generally had the highest capture rates, followed by municipal services, with private waste companies achieving the lowest performance).
- it gives a central place to the cultural significance of recycling, and sees recycling as playing a part in the City's bid to be the European city of culture.
- it would be structured through a unique municipal/community partnership

Weekly collections.

25. National and international evidence suggests that weekly collections raise capture rates by 25%-30%. They limit the build up of recyclables within the house and they make it easier for householders to remember to set out their box, particularly if recycling is scheduled on the same day as the regular dustbin collections. The SWAP report based on community recycling experience suggests that even with a low intensity collection system, the expected capture rate in Newcastle would increase from 54 kg to 69 kg. per household p.a..

Pedestrian controlled vehicles

26. The pedestrian controlled recycling vehicles (PCVs) were an innovation resulting from co-operation between the London Borough of Haringey and Smiths Electric Vehicles of Gateshead. Haringey found that they faced insuperable constraints from operating source separated collections with caged vehicles in congested inner city streets. With Smith's they developed an electric cart that operates on the pavement, thus avoiding congestion. Materials are sorted into 8 or more builder's bags, which

when full are transferred to a Hiab vehicle that takes the materials to one or more bulking centres. One Hiab can service 10-12 PCVs.

27. Designed originally to avoid congestion the PCV system turned out to have a number of other advantages:

- The vehicles have a low capital cost (£12,000, less than a third of the cost of a caged vehicle, and less than a tenth of an RCV.)
- They have low running costs (approximately £300 p.a.)
- They have higher labour productivity because the vehicle is close to the kerbside boxes, and there is therefore a saving of collector time in moving the box to the vehicle
- Collectors spend a higher proportion of time collecting, since the Hiab vehicle means that the collectors do not have to return to the depot to unload
- PCVs do not require a driving license, and are particularly suited to New Deal trainees
- Operating at walking pace, they generate more interaction with householders, and have achieved higher capture rates than road-based vehicles on similar streets

28. PCV systems provide the core kerbside collections in Haringey and Islington, and have now been adopted in Birmingham, Manchester and Dublin. Representatives of the Newcastle unions visited the scheme in operation in Haringey and concluded that the system would be particularly appropriate for the inner city areas of Newcastle where the aim is high capture rates.

29. They would be less appropriate in those areas with detached housing with longer distances between houses. These would best be served by the caged vehicles, using a driver plus one, with rounds similar to those operated by the wheeled bin collection.

The Community sector.

30. Bulking, transporting and selling materials would be the responsibility of a newly established Newcastle Community Recycling Consortium. The goals of the Consortium would be to promote intensive recycling, reduction and re-use in Newcastle and to raise awareness and promote good practice.

31. A principle function of the Consortium would be to work with the collectors on increasing participation and capture rates. It is proposed that the Council conclude a service agreement with the Consortium for this purpose covering such issues as:

- Household visiting programmes during the roll out of the recycling service

- Printed and visual materials for use by collectors
- The development of management information systems to allow targeting of materials and households
- City wide publicity
- The expansion of educational programmes in schools
- The operation of household incentive schemes, including prize draws, discounts, and contributions to community facilities.
- Training programmes in community relations and high recycling participation for collectors

32. The operating costs of the Consortium would be covered by a proportion of the material sales income, and by grant finance. There are a number of programmes for which a Consortium of this kind would be in a strong position to obtain funds, notably:

- the DEFRA community recycling fund of £38 million
- the WRAP programme for recycling awareness promotion
- the National Lottery's community fund
- the SEED programme of the New Opportunities Fund

Recycling and Newcastle as the European City of Culture.

33. One of the most effective ways of increasing the impact of recycling programmes is to work closely with the arts and design sector. As with recycling in general, this has been less developed in the UK, but has been successfully pursued overseas. Projects on whose experience Newcastle could draw include:

- the design of recycling vehicles and logos for the service⁹
- the engagement of an artist in residence attached to the recycling scheme (New York has had a particularly rich experience of having an artist in residence in the Sanitation Department)¹⁰

⁹ There are a number of Dutch municipalities that have successfully employed designers to transform the appearance of their vehicles and containers

¹⁰ See Mierle Laderman Ukeles "On Maintenance and Sanitation Art" in Tom Finkelpearl (ed) *Dialogues in Public Art*, MIT Press, 2001

- the employment of artists in the design of new waste treatment and recycling facilities¹¹
 - the establishment of an eco-design programme, involving universities, local firms, designers and the Council in promoting eco-design with the aim of reducing hazardous materials in household goods, of increasing recyclability and reparability.¹²
 - the promotion of a festival/competition/performance centred on the theme of waste
34. It is proposed that a programme of this kind be established forthwith, in conjunction with the launch of the recycling service, and linked in to Newcastle's bid to be the European City of Culture. The Design Council is currently running a programme for the use of design in public services, and would be open to an approach for the funding of a development plan for a programme of this kind in time for the launch of the new service.¹³

Municipal/community partnership.

35. Recycling is not a stand alone service. It involves a succession of processes from initial separation, to collection, bulking, transport, and sales. Unlike many public services it produces goods for sale on the market, and therefore requires a range of skills not customarily found in local authorities. The unions' high recycling in-house bid proposes an innovative structure for operating the service which seeks to draw on the strengths of the many parties involved in the recycling process. There would be two operational bodies responsible for the success of the service:
- i) Cityworks Recycling, being a separate section of Cityworks, charged with designing and running of the recycling collection service. It is proposed that this section work closely with a recycling promotion panel, comprising elected Councillors, Cityworks, Unison and the GMB, and the community sector
 - ii) Newcastle Community Recycling Consortium, responsible for bulking, transport and material sales, and the community wide promotion of recycling. NCRC would be a company limited by guarantee with a Board representing the community sector (including nominees from BANWASTE), elected councillors, Unison and the GMB, private sector partners, and arts organisations. Its chair would come from the community sector.

¹¹ Linnea Glatt and Michael Singer "On Designing the Phoenix Solid Waste Management Facility" in Finkelpearl, op.cit.

¹² For a pioneering approach to eco-design see William McDonough and Michael Braungart, Cradle to Cradle: Remaking The Way We Make Things, North Point Press 2002

¹³ See the Design Council's scoping document, "Redesigning Waste", February 2002

36. The overlap of membership on the panel and the NCRC would ensure co-ordination between the two organisations. The most important thing in both bodies is that the operating managers and the members of the panel/board should be committed to the success of the recycling scheme. Recycling is an innovative service. It is a service which needs first and foremost to be designed for the convenience of the household, and to establish a relationship with households that encourages their commitment to the programme. It requires new skills in the workforce, new ways of organising collection economically, and of ensuring that material is delivered to processors on time and at the right quality. Introducing a service of this kind will involve innumerable challenges, which can only be successfully faced if all those involved are problem solvers rather than problem makers, and are committed to the services success.
37. We propose that the appointment of the manager in charge of the collection service be subject to open advertisement and to the advice of the Cityworks Recycling panel.

Finance and implementation.

38. Intensive recycling is initially more costly than low level recycling. As a guide, Councils allow a budget of £10 per household per year, net of materials income and recycling credits. In the case of low rise households in Newcastle this would mean a budget of £1 million p.a. as against the annual average of £240,000 requested by Cityworks.
39. The Unions recognise the short term budgetary constraints currently faced by the Council. But they wish to emphasise the importance of Newcastle moving from the bottom of the urban recycling table to the top, and of taking on the financial responsibility which this entails.
40. Within the current and proposed structure of waste finance, the funding of municipal recycling relies on four things:
- *income from the sale of materials (in this proposal the NCRC would guarantee an income to the City Council that averages £10 a tonne over 5 years, or £1 per household p.a.).*
 - the savings in dustbin collection and disposal costs. Currently the main savings would be in disposal costs, which are set to rise from £42 a tonne in 2003/4 to £66 a tonne by 2007/8.
 - the City Council's budgetary provision (an allowance for the increased costs of the new systems of waste management have been made in the SSA allocations; Citworks has proposed a new budget allocation of £1.21 m over 5 years, which amounts to £23 a tonne (for 52,000 tonnes) or £2.40 per household p.a.)

- grant income from a range of funds, including the Government's earmarked recycling funds contained in the latest Spending Review, the Single Regeneration Budget, the New Deal for employment (New Deal workers would provide additional support for crews and householder contact and help to raise the capture rate), and the hypothecated funds from the Landfill Tax, currently administered through the Landfill Tax Credit Scheme, but due to be revised to include direct public funding of recycling.
41. The unions have negotiated a high level of net material income, but the major savings arise from the high capture rates which result from the recycling systems chosen and the central role of the community sector in promoting recycling. The higher the capture, not only is there an increase in net income, but more significantly, a substantial increase in disposal savings. The higher the capture rate, the lower the call on supplementary Council funding or grant income.
42. The proposed roll out of the programme is as follows:
- In year 1, the bulk of the city will be served on the basis of the in-house Cityworks model, with six caged vehicles servicing 86,000 households on a fortnightly basis, supplemented by four PCVs providing a weekly service to 14,000 inner city households. This allows the service to be operated at a net cost to the Council in 2003/4 of £195,917, within the proposed growth bid for kerbside recycling in the forthcoming Council budget.
 - The depot will be brought on stream at the start of the programme in April 2003.
 - In year 2 the number of PCVs will be increased to 16 and the 6 caged vehicles (together with 1 new one) will be switched to weekly collections. PCVs and caged vehicles will thus each serve half the city. The intensification of the collections and expansions of the PCVs is forecast to lead to a significant increase in recycling to an average of 105 kg per household p.a.
43. Table 6 shows the cost implications of this 'hybrid' programme. The points to note are:
- Wage levels are the same as those used for the Cityworks in-house bid.
 - Tonnage captured moves to 10,500 tonnes in year two, and then increases by an average of 5.5% p.a. after that. Overall tonnage exceeds the target put forward by Cityworks.
 - Collection costs are £5 million as against £3.8 million in the in-house fortnightly option. Disposal savings are £3 million, and guaranteed income from materials £0.5 million. This leaves a funding gap of £1.5 million, of which £1.2 million has been put forward by Cityworks as a budget bid. This leaves a shortfall to be funded of £350,000, or £70,000 p.a..

Table 6 In-house intensive bid

| | 2003/4 | 2004/5 | 2005/6 | 2006/7 | 2007/8 | Total |
|---|----------------|------------------|------------------|------------------|------------------|------------------|
| Tonnes | 6,500 | 10,500 | 11,250 | 11,750 | 12,250 | 52,250 |
| <i>Costs (caged)</i> | | | | | | |
| Number of crews | 6 | 7 | 7 | 7 | 7 | |
| Crew @ £38,645 | 153,034 | 278,630 | 286,989 | 295,599 | 304,467 | 1,318,720 |
| Hol/sick cover | 30,607 | 55,726 | 57,398 | 59,120 | 60,893 | 263,744 |
| Training | 4,874 | 8,874 | 9,140 | 9,415 | 9,697 | 42,000 |
| Supervisor + call centre | 71,618 | 73,767 | 75,980 | 78,259 | 80,607 | 380,230 |
| Total employee (caged vehicles) | 260,133 | 416,997 | 429,507 | 442,392 | 455,664 | 2,004,694 |
| Transport (caged) @ 13,556 x 7 | 62,629 | 108,448 | 108,448 | 108,448 | 108,448 | 496,421 |
| Total caged costs | 322,762 | 525,445 | 537,955 | 550,840 | 564,112 | 2,501,114 |
| <i>Costs PCVs</i> | | | | | | |
| Number of crews | 4 | 16 | 16 | 16 | 16 | |
| Crew (18565) + share of Hiab driver | 94,340 | 347,316 | 357,735 | 368,468 | 379,522 | 1,547,381 |
| Hol/sick cover | 18,868 | 69,463 | 71,547 | 73,894 | 75,904 | 309,476 |
| Training | 1,828 | 7,530 | 7,756 | 7,989 | 8,229 | 33,332 |
| Supervisor | 0 | 25,750 | 26,529 | 27,318 | 28,138 | 107,728 |
| Total employee | 115,036 | 450,059 | 463,561 | 477,468 | 491,792 | 1,997,917 |
| Transport @ 2941PCV & 13556 | 25,320 | 80,050 | 80,050 | 80,050 | 80,050 | 345,520 |
| Total PCV costs | 140,356 | 530,109 | 543,611 | 557,518 | 571,842 | 2,343,437 |
| <i>All caged&PCV employee costs</i> | <i>375,169</i> | <i>867,057</i> | <i>893,068</i> | <i>919,860</i> | <i>947,456</i> | <i>4,002,610</i> |
| <i>All caged & PCV vehicle costs</i> | <i>87,949</i> | <i>188,498</i> | <i>188,498</i> | <i>188,498</i> | <i>188,498</i> | <i>841,941</i> |
| Bins | 39,600 | 39,600 | 39,600 | 39,600 | 39,600 | 198,000 |
| Total collection | 502,717 | 1,095,155 | 1,121,166 | 1,147,958 | 1,175,554 | 5,042,551 |
| Collection costs per tonne | 77 | 104 | 100 | 98 | 96 | 97 |
| Depot £120000+£5 per tonne | 152,500 | 172,500 | 176,250 | 178,750 | 181,250 | 861,250 |
| <i>Revenue</i> | | | | | | |
| Paper @ 63% x £35 pt | 143,325 | 231,525 | 248,063 | 259,088 | 270,113 | 1,152,113 |
| Glass @ 31.5% x £15 pt | 30,713 | 49,613 | 53,156 | 55,519 | 57,881 | 246,881 |
| Al cans @ 0.4% x £650 pt | 16,900 | 27,300 | 29,250 | 30,550 | 31,850 | 135,850 |
| Steel cans @ 2% x 20 pt | 2,600 | 4,200 | 4,500 | 4,700 | 4,900 | 20,900 |
| Textiles @ 1% x £100 pt | 6,500 | 10,500 | 11,250 | 11,750 | 12,250 | 52,250 |
| Plastic bottles @ 2.1% x £50 pt | 6,825 | 11,025 | 11,813 | 12,338 | 12,863 | 54,863 |
| Total revenue | 206,863 | 334,163 | 358,031 | 373,944 | 389,856 | 1,662,857 |
| Tonnes of material | 6,500 | 10,500 | 11,250 | 11,750 | 12,250 | 52,250 |
| Ave revenue per tonne | 31.825 | 31.825 | 31.825 | 31.825 | 31.825 | 31.825 |
| Income less depot costs | 54,363 | 161,663 | 181,781 | 195,194 | 208,606 | 801,607 |
| Collection costs less net income | 448,355 | 933,492 | 939,385 | 952,765 | 966,948 | 4,240,945 |
| Disposal cost savings £ per tonne | 42.2 | 52.06 | 56.57 | 61.11 | 65.71 | 57 |
| Total disposal savings | 274,300 | 546,630 | 636,413 | 718,043 | 804,948 | 2,980,333 |
| Total net cost less disposal savings | 174,054 | 386,862 | 302,973 | 234,722 | 162,000 | 1,260,612 |
| <i>With community consortium guarantee</i> | | | | | | |
| Council guaranteed tonnage income | 32,500 | 97,500 | 112,500 | 122,500 | 132,500 | 497,500 |
| Net Council recycling costs | 470,217 | 997,655 | 1,008,666 | 1,025,458 | 1,043,054 | 4,545,051 |
| Recycling costs - disposal savings | 195,917 | 451,025 | 372,254 | 307,416 | 238,107 | 1,564,718 |
| Income less depot and council payments | 21,863 | 64,163 | 69,281 | 72,694 | 76,106 | 304,106 |

Note: Year 1 assumes that PCV rounds are started in April 1st 2003, and the caged vehicle rounds are rolled out monthly between April and November. The initial tonnages tend to be higher than average as households 'de-stock' on recyclables.

- No allowance is made for publicity costs, since it is proposed the responsibility for publicity be placed with the NCRC, who will draw on surpluses from the handling and sale of materials, and from grant funding. An adequate budget for publicity is particularly important. Use should be made of existing Council means communications and publicity in conjunction with the community initiatives.
44. The central conclusion to be drawn from Table 6 is that a high quality service can be delivered for a net cost to the Council of £30 a tonne, or £3 a household. This is close to the proposed Council budget provision, with the gap being made up from a range of external sources of funding.
45. To date the Council has had mixed success in raising recycling grants, notably failing in its recent joint bid with North Tyneside for DEFRA finance of kerbside recycling. Grant givers have tended to favour innovative, well designed and credible bids, and the Unions believe that a proposal of the kind outlined here would stand a strong chance of being supported.
46. In conclusion, the intensive recycling bid promises substantially higher capture rates (lower poor performance risk) while remaining close to the existing proposed budget contributions from the City Council. This is the option which offers the best prospective value, and conforms most closely to the Council's sustainability and cultural goals.

Appendix 1

The Newcastle Kerbside Recycling Contract. Assessment by Ecologika of the Sita bid and the in-house comparator, October 2002.

Summary

1. This report was commissioned by the Newcastle branches of Unison and the GMB. The unions asked for an assessment of the preferred private sector bid by SITA for the recycling contract and of the in-house bid developed by Cityworks as a comparator.

Overview

2. The main conclusions are that:
 - the Sita bid will not be able to deliver the tonnage forecast by Cityworks and required to meet the Council's recycling targets
 - the Sita bid is not Best Value either in terms of cost or service quality
 - the in-house comparator as prepared by Cityworks contains estimates for bulking, transporting and marketing materials which are out of line with good industry practise
 - a revised in-house bid conforming to good industry practise would deliver the proposed service more cheaply
 - an improved service which would meet and exceed the tonnage targets could be provided in-house in partnership with the community sector within the Council's funding constraints.
 - the detailed design of the in-house bid and arrangements for the bulking and marketing of materials should be progressed forthwith so that an improved city-wide service can be introduced promptly to take advantage of the current favourable market and funding conditions.

The service

3. Both the SITA bid and the in-house comparator have been based on a fortnightly door to door collection of five materials (paper, glass, metal cans, textiles and plastic bottles). The model is a familiar low cost/low capture service. The Newcastle crews have been assigned over 1400 households per day, a pass rate that can only be achieved with low participation. On the basis of parallel experience elsewhere, such a service would struggle to collect 30,000 tonnes over 5 years (as against the Cityworks target of 52,000 tonnes) or 5% of household waste.

4. Nor do the terms of the bid provide a significant incentive for SITA to invest in a high performing service. SITA is paid £51 a tonne for disposing of the Council's dustbin waste, and would be paid only £11 more (initially £62 a tonne) were that material recycled. Every further 1000 tonnes recycled would thus only yield SITA an extra £11,000, a fraction of the extra cost of raising recycling rates, for example by shifting to a weekly collection.

The cost

5. Cityworks estimate that an in-house bid would cost £4.961 million over 5 years against £3.629 million in the case of SITA. Part of this difference can be explained by a cut in wages and conditions resulting from privatisation. But the overall in-house collection costs are estimated at only 5% above SITA's bid, (or £3.56 a tonne).
6. The major cause of the difference is in the assumptions on bulking, transporting and selling materials. The in-house bid treats the value of the materials collected as a cost not a revenue. Cityworks have made an agreement with SITA to bulk recycled materials at their depot in North Tyneside, ship them to processing mills and retain all income from their sale. In addition, Cityworks would pay SITA £20 a tonne gate fee.
7. Detailed estimates made for Newcastle by the marketing specialists of the Community Recycling Network (the largest kerbside recyclers in the UK) suggest that the materials collected should be worth a minimum of £10 a tonne, net of bulking and transport costs, rather than the negative £20 gate fee agreed with SITA.
8. If the in-house bid is re-worked with a net income of £10 a tonne for materials, then this option would save the Council £331,000 over 5 years relative to the SITA bid.

The Depot

9. The outstanding issue to determine is the siting and cost of the depot. The unions have identified the Benwell CA site and former transfer station as the most suitable and least cost option. It has a substantial covered area and structures suitable for bulking bays. We were given to understand that it is shortly due for closure and disposal. It is important that any decision on the site takes account of its significance for an expanded recycling programme.

Risk.

10. Cityworks have expressed concern at the risks to the Council of providing an in-house recycling service. There are two significant risks, those of performance and markets. On performance, we recommend that the in-house scheme employ a manager with experience of intensive recycling. On markets, we recommend that a consortium of the Community Recycling Network (CRN) and local community groups (being partners to the in-house bid) undertake the management of the depot,

the transport and sale of materials in return for a guaranteed income paid to the Council on all material sold (the CRN have made an initial proposal of £10 a tonne).

An improved service.

11. Cityworks have access to the following sources of finance to fund the cost of kerbside recycling:

- £1.4 million from the DEFRA recycling fund (jointly with North Tyneside; Newcastle's share is c. £800,000)
- £1.214 million over 5 years from the Council's budget.
- £51 a tonne from savings in contracted disposal costs as the result of recycling (valued at £2.65 million over 5 years for 52,000 tonnes)
- savings in landfill tax, which are likely to rise significantly during the period

If these funds are u:

house- community partnerships would be engage, they would be sufficient to implement an intensive recycling scheme designed to meet and exceed the Council's targets.

Timescale

12. Any decision to go ahead with SITA bid before a full consideration of a revised in-house alternative would be premature for two reasons:

- a revised in-house proposal, unlike the SITA proposal, would meet Best Value criteria at the same time as ensuring secure employment with recognised rates of pay and conditions
- the Government's radical review of waste policy, and the Treasury announcement on waste finance and taxes, are due at the end of November. Both are likely to affect the economics and regulatory regime of recycling in ways which any new scheme in Newcastle should take into account

13. What is required is the urgent completion of the revised in-house proposal, drawing on the work already undertaken by Cityworks, BANWASTE and the unions, to allow the launch of the programme early in 2003/4.

Table 3 Union In house low intensity bid/initial version

| | 2003/4 | 2004/5 | 2005/6 | 2006/7 | 2007/8 | Total |
|--|----------------|----------------|----------------|----------------|-----------------|------------------|
| Tonnes | 6,000 | 10,000 | 11,000 | 12,000 | 13,000 | 52,000 |
| Costs | | | | | | 0 |
| Crew @ 58,319 x 7 | 408,233 | 420,480 | 433,094 | 446,087 | 459,470 | 2,167,364 |
| Hol/sick cover | 81,647 | 84,096 | 86,619 | 89,217 | 91,894 | 433,473 |
| Training | 7,911 | 8,148 | 8,393 | 8,644 | 8,904 | 42,000 |
| Supervisor + call centre | 71,618 | 73,766 | 75,979 | 78,259 | 80,607 | 380,229 |
| Total employee | 569,408 | 586,491 | 604,085 | 622,208 | 640,874 | 3,023,066 |
| Transport @ 13,556 x 7 x 1.25 cover | 118,615 | 118,615 | 118,615 | 118,615 | 118,615 | 593,075 |
| Bins | 39,600 | 39,600 | 39,600 | 39,600 | 39,600 | 198,000 |
| Total collection costs | 727,623 | 744,706 | 762,300 | 780,423 | 799,089 | 3,814,141 |
| Collection costs per tonne | 121 | 74 | 69 | 65 | 61 | 73 |
| Depot £120000+£5 per tonne | 150,000 | 170,000 | 175,000 | 180,000 | 185,000 | 860,000 |
| Revenue | | | | | | 0 |
| Paper @ 63% x £35 pt | 132,300 | 220,500 | 242,550 | 264,600 | 286,650 | 1,146,600 |
| Glass @ 31.5% x £15 pt | 28,350 | 47,250 | 51,975 | 56,700 | 61,425 | 245,700 |
| Al cans @ 0.4% x £650 pt | 15,600 | 26,000 | 28,600 | 31,200 | 33,800 | 135,200 |
| Steel cans @ 2% x 20 pt | 2,400 | 4,000 | 4,400 | 4,800 | 5,200 | 20,800 |
| Textiles @ 1% x £100 pt | 6,000 | 10,000 | 11,000 | 12,000 | 13,000 | 52,000 |
| Plastic bottles @ 2.1% x £50 pt | 7,800 | 13,000 | 14,300 | 15,600 | 16,900 | 67,600 |
| Total revenue | 192,450 | 320,750 | 352,825 | 384,900 | 416,975 | 1,667,900 |
| Tonnes of material | 6,000 | 10,000 | 11,000 | 12,000 | 13,000 | 52,000 |
| Ave revenue per tonne | 32.075 | 32.075 | 32.075 | 32.075 | 32.075 | 32.075 |
| Income less depot costs | 42,450 | 150,750 | 177,825 | 204,900 | 231,975 | 807,900 |
| Collection costs less net income | 685,173 | 593,956 | 584,475 | 575,523 | 567,114 | 3,006,241 |
| Disposal cost savings £ per tonne | 42.2 | 52.06 | 56.57 | 61.11 | 65.71 | 57 |
| Total disposal savings | 253,200 | 520,600 | 622,270 | 733,320 | 854,230 | 2,983,620 |
| Total net cost less disposal savings | 431,973 | 73,356 | -37,795 | -157,797 | -287,116 | 22,621 |
| Council guaranteed tonnage income | 30,000 | 87,500 | 107,500 | 127,500 | 147,500 | 500,000 |
| Net Council recycling costs | 697,623 | 657,206 | 654,800 | 652,923 | 651,589 | 3,314,141 |
| Recycling costs less disposal savings | 444,423 | 136,606 | 32,530 | -80,397 | -202,641 | 330,521 |
| Income less Depot & Council payments | 12,450 | 63,250 | 70,325 | 77,400 | 84,475 | 307,900 |

Option 1 Council downside risk with no modification (2)

| | 2003/4 | 2004/5 | 2005/6 | 2006/7 | 2007/8 | Total |
|--|----------------|----------------|----------------|----------------|----------------|------------------|
| Tonnes | 6,000 | 7,500 | 8,000 | 8,500 | 9,000 | 39,000 |
| Costs | | | | | | |
| Crew @ 58,319 x 7 | 408,233 | 420,480 | 433,094 | 446,087 | 459,470 | 2,167,364 |
| Hol/sick cover | 81,647 | 84,096 | 86,619 | 89,217 | 91,894 | 433,473 |
| Training | 7,911 | 8,148 | 8,393 | 8,644 | 8,904 | 42,000 |
| Supervisor + call centre | 71,618 | 73,766 | 75,979 | 78,259 | 80,607 | 380,229 |
| Total employee | 569,408 | 586,491 | 604,085 | 622,208 | 640,874 | 3,023,066 |
| Transport @ 13,556 x 7 x 1.25 cover | 118,615 | 118,615 | 118,615 | 118,615 | 118,615 | 593,075 |
| Bins | 39,600 | 39,600 | 39,600 | 39,600 | 39,600 | 198,000 |
| Total collection costs | 727,623 | 744,706 | 762,300 | 780,423 | 799,089 | 3,814,141 |
| Collection costs per tonne | 121 | 99 | 95 | 92 | 89 | 98 |
| Depot £120000+£5 per tonne | 150,000 | 157,500 | 160,000 | 162,500 | 165,000 | 795,000 |
| Revenue | | | | | | 0 |
| Paper = D4*0.63 tonnes * 35 | 132,300 | 165,375 | 176,400 | 187,425 | 198,450 | 859,950 |
| Glass =D4 * 0.315 * 15 | 28,350 | 35,438 | 37,800 | 40,163 | 42,525 | 184,275 |
| Al cans = D4* 0.004 x £650 | 15,600 | 19,500 | 20,800 | 22,100 | 23,400 | 101,400 |
| Steel cans = D4 *0.02 x 20 | 2,400 | 3,000 | 3,200 | 3,400 | 3,600 | 15,600 |
| Textiles @ 1% x £100 pt | 6,000 | 7,500 | 8,000 | 8,500 | 9,000 | 39,000 |
| Plastic bottles @ 2.1% x £50 pt | 7,800 | 9,750 | 10,400 | 11,050 | 11,700 | 50,700 |
| Total revenue | 192,450 | 240,563 | 256,600 | 272,638 | 288,675 | 1,250,925 |
| Tonnes of material | 6,000 | 7,500 | 8,000 | 8,500 | 9,000 | 39,000 |
| Ave revenue per tonne | 32.075 | 32.075 | 32.075 | 32.075 | 32.075 | 32.075 |
| Income less depot costs | 42,450 | 83,063 | 96,600 | 110,138 | 123,675 | 455,925 |
| Collection costs less net income | 685,173 | 661,643 | 665,700 | 670,285 | 675,414 | 3,358,216 |
| Disposal cost savings £ per tonne | 42.2 | 52.06 | 56.57 | 61.11 | 65.71 | 57 |
| Total disposal savings | 253,200 | 390,450 | 452,560 | 519,435 | 591,390 | 2,207,035 |
| Total net cost less disposal savings | 431,973 | 271,193 | 213,140 | 150,850 | 84,024 | 1,151,181 |
| Council guaranteed tonnage income | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 | 150,000 |
| Net Council recycling costs | 697,623 | 714,706 | 732,300 | 750,423 | 769,089 | 3,664,141 |
| Recycling costs less disposal savings | 444,423 | 324,256 | 279,740 | 230,988 | 177,699 | 1,457,106 |
| Income less Depot & Council payments | 12,450 | 53,063 | 66,600 | 80,138 | 93,675 | 305,925 |

