

Risk Area	Description of the risk	Assumption and rationale	Risk adjustment applied
Risk 1 Eco-park capex escalation	There is a risk that, under the contract, Sita could increase the agreed capital price between NTP1 and NTP2. SCC bears the risk of this price increase.	No longer applicable The price offered by Sita and the contractor is now final as the time between this analysis and the NTP2 date is very short. There is now negligible risk of the capital price changing.	None
Risk 2 Contract cost T payments (excluding eco-park costs) and contract cost P payments	T payments and P prices are fixed during the concession period. There is a risk that SCC would need to procure operators for all the waste treatment sites outside of the Sita contract and they may not achieve the same price through a re-procurement. This affects Option 1 post concession and Option 3 post termination.	During concession Option 1 During the concession period under Option 1, the Council would receive a guaranteed service for a pre-determined price from Sita. This provides certainty for the Council and therefore Option 1 has no risk adjustment in this period. Option 3 Under Option 3, the Council would need to re-procure the equivalent service either from Sita or another provider. There is a risk that the Council will not be able to secure the same prices that they have currently agreed with Sita in starting a new procurement. Using the HMT Green Book guidance, the maximum risk (upper limit) would be 41% as operating expenditure on outsourced contracts. The 4 elements of the 41% (with their respective weightings) are: client specific risk (inadequacy of business case) – 52% client specific risk (poor project intelligence) – 32% external influences (technology) - 9% Project specific (other) – 3%	During concession Option 1 – no risk adjustment Option 3 – 17.22% increase to T and P Post concession Option 1 – 8.61% increase to T and P Option 3 – 17.22% increase to T and P

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		<p>The Council determined only client specific risks are applicable to this project. Therefore the maximum risk adjustment is 34.44% ((32% + 52%) * 41%).</p> <p>With regards to Option 3, the council considered the risks outlined above to be high because:</p> <ul style="list-style-type: none"> a business case to terminate and re-procure a 25 year solution to deliver the CRC and RTS facilities had not been developed and considered at a sufficiently detailed business case level to mitigate all risks; and the Council do not have sufficient market intelligence with regards to the attractiveness to the market place to deliver the CRC and RTS facilities without the Eco-Park and whether or not this service is deliverable over a 25 year contract. <p>Therefore, the Council applied a 50% risk factor to the above maximum risk giving a risk adjustment in Option 3 of 17.22% for the concession period based on the following three point estimates:</p> <p>Lower case - no increase in costs Most likely 17.2% increase in costs Upper case 34.4% increase in costs</p> <p>Post concession</p> <p>For Option 3, there is no distinction in arrangements over the evaluation period and so the same level of risk adjustment is applied as for during the concession period i.e. 17.22%</p> <p>For Option 1, the risks outlined above are applicable after the contract with Sita ends in 2024. However, the Council believes that the risks post concession are mitigated because Sita will have been providing the service up until contract expiry and so the Council have the benefit of operating the facilities for a longer period of time and developing efficiencies in operation. The risk adjustment is therefore assumed to be 50% of the Option 3 risk i.e. 50% x 17.22% = 8.61% based on the following three point estimates:</p> <p>Lower case - no increase in costs Most likely 8.6% increase in costs Upper case 17.2% increase in costs</p>	

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Risk 3 Pass through costs	The Sita model includes several price assumptions for processes that the Council pay for as 'pass-through' costs. The Council bare the risk of price increases in these elements of the model. These have a differential impact on the options due to the different waste flows under the options.	<p>Landfill tax</p> <p>In light of recent announcements from the Chancellor regarding landfill tax, the Council do not expect any increases to the tax level, other than RPI inflation, until 2017/18. Based on technical advice from Mott MacDonald, the Council believe that future changes to legislation will dis-incentivise the use of landfill (be it through taxation or some other mechanism). Mott MacDonald advised the Council that the cost of landfill could be as much as double in real terms by the year 2040 and there is almost no possibility of any reduction to the current level.</p> <p>Using a three point estimate the expected value of the landfill tax was calculated in 2040 as:</p> <p>Lower limit - £82.60 (current price)</p> <p>Most likely - £82.60 (current price)</p> <p>Upper limit - £165.20 (twice current price)</p> <p>Expected value - £110.13 in real terms (the average of the three points above).</p> <p>The difference between the current gate fee (82.60) and the expected value (110.13) is 27.53. The Council felt they could not predict the timing of any future legislative changes so assumed that the price will increase linearly in real terms from 1 April 2017 for 23 years to 2040; therefore a real increase of £1.20 (27.53/23) per tonne per annum.</p>	<p>Landfill tax</p> <p>All options - £1.20 per tonne per annum increase</p>
		<p>Land fill gate fee</p> <p>Landfill gate fees often require guaranteed volumes of waste to achieve the best prices in the market. Sita process additional landfill waste other than the waste provided by the Council, therefore, under Option 1 the contract provides the Council with the benefit of Sita's purchasing power to give the best price. Despite this mitigation, the Council still bears the risk of price increases during the concession period.</p>	<p>Landfill gate fee</p> <p>Option 1 during concession – real increase of £0.39 per tonne per annum</p> <p>Option 3 (and Option 1 post concession) – real increase of £0.47 per tonne per annum</p>

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		<p>Under Option 3 for the entire evaluation period, and Option 1 post concession, the Council do not benefit from Sita's purchasing power for landfill waste exposing the Council to risk of price increases.</p> <p>The Council have calculated the risk adjustments using three point estimates set out below. Mott MacDonald advised that landfill is only likely to get more expensive in the future due to regulation, increase in alternatives, especially EFW, and capacity constraints. The estimates below represent the values in 2040.</p> <p>Option 1 during concession</p> <p>Lower Limit - £ [redacted] /tonne (current price)</p> <p>Most likely value - £22/tonne (WRAP median price)</p> <p>Upper limit - £49/tonne (WRAP upper price)</p> <p>Expected value is therefore £ [redacted] per tonne in 2040. Assuming a linear increase per annum the risk adjustment is therefore £ [redacted] per tonne per annum increase to the landfill gate fee (calculated as £ [redacted] less £ [redacted] divided by 25 years).</p> <p>Option 3 (and Option 1 after concession)</p> <p>Lower Limit - £ [redacted] /tonne (estimated price without purchasing power under the contract)</p> <p>Most likely value - £ [redacted] /tonne (as above)</p> <p>Upper limit - £ [redacted] /tonne (as above)</p> <p>Expected value is therefore £ [redacted] per tonne. Assuming a linear increase per annum this is a risk adjustment is therefore £ [redacted] per tonne per annum increase to the landfill gate fee (calculated as £ [redacted] less current price £ [redacted] divided by 25 years).</p>	

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		<p>Merchant EFW</p> <p>Merchant EFW is the direct alternative to the gasifier in the Sita contract. The Council assume that the price of EFW cannot exceed landfill, as the market would never pay more than this price (as they would use the landfill option if it were cheaper). Mott MacDonald advised the council that the cost of merchant EFW is therefore most likely to track the cost of landfill (including tax, gate fees and haulage) at approximately 7% below.</p> <p>At the time of the risk workshop, the council had an offer from Sita to dispose of waste through Merchant EFW sites for £[redacted] per tonne including haulage until 31 March 2017.</p> <p>The adjustment applied is therefore to adopt the price of £[redacted] inflated until 31 March 2017 using contract inflation, and then to peg the EFW price at 7% below the cost of landfill from 1 April 2017 until the end of the evaluation period.</p>	<p>Merchant EFW gate fee</p> <p>Track the cost of landfill at 7% below from 1 April 2017</p>

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	<p>Merchant AD</p> <p>Merchant AD is the direct alternative to the Sita AD in the contract. As above for the gasifier, under Option 1 during concession, the AD site would be fully utilised and the price paid by the Council would be fixed in the contract (therefore, no risk adjustment required).</p> <p>Under Option 3 (for the whole evaluation period) and Option 1 (post concession), the cost per tonne of AD is subject to market risk. The Council have developed a three point estimate for the risk adjustment as:</p> <p>Lower limit – £119/tonne (lower price per WRAP's report)</p> <p>Most likely - £41/tonne (median price per WRAP's report)</p> <p>Upper limit - £●●●onne (Molt MacDonald advise that this is a reasonable estimate for the upper range)</p> <p>Expected value is therefore £●●● per tonne.</p> <p>The Council have a contract price secured until 1 April 2017 and therefore the adjustment has been applied from that point. The model base assumption is that the gate fee will ●●●●● per tonne (in real terms) on 1 April 2017 and the adjustment is therefore a £●●●●● to the gate fee to reflect the expected value above.</p>	<p>Merchant AD gate fee</p> <p>Option 1 post concession – gate fee ●●●●● per tonne (real)</p> <p>Option 3 – gate fee ●●●●● per tonne after 1 April 2017 (real)</p>	

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<p>Risk 4 SITA Contract Termination Costs</p>	<p>There is considerable uncertainty over the termination payment calculation and hence amount. There is therefore a risk to the Council that the costs to terminate are higher than expected.</p>	<p>The termination payment due to Sita under Option 3 is subject to uncertainty due to the ambiguous wording of the termination clauses in the contract.</p> <p>In October 2013, the Council obtained legal advice from Simmons and Simmons that in the event of termination in advance of signing the Deed of Variation, a 'no fault' termination event should apply including loss of future profits.</p> <p>In light of recent experience of PFIs that terminate early, many of which have included some level of loss of profits, the termination payment risk assumptions were reviewed, and the Council determined that the analysis should include a risk for loss of profits on equity invested to date.</p> <p>The Council therefore calculated a risk adjustment for the termination payment as:</p> <p>Lower limit - £ [REDACTED] (current estimation method including loss of profits on sub-contracted activities)</p> <p>Most likely - £ [REDACTED] (as above)</p> <p>Upper limit - £ [REDACTED] (current estimate including loss of profits and an additional [REDACTED]% return on the group undertaking ([REDACTED]) which is Sita's expected return on its net investment to date).</p> <p>Risk adjusted value is therefore £ [REDACTED]</p>	<p>Option 3 only – termination calculation set to £ [REDACTED]</p>
<p>Risk 5 Capex rebasing</p>	<p>Due to the delay in NTP2, Sita have the option to rebase the capital expenditure to reach NTP2 (estimated as £60m) from February 2014 to the actual NTP2 date. This would increase the value of T for the concession period.</p>	<p>No longer applicable</p> <p>The price offered by Sita and the contractor is now final as the time between this analysis and the NTP2 date is very short. There is now negligible risk of the capital price changing.</p>	<p>None</p>

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Risk 6a Additional delay costs	There is a risk that there are further delays to the contract and the Council do not meet the NTP2 date of April 2014. This will result in an increase in delay costs in the model.	No longer applicable The price offered by Sita and the contractor is now final as the time between this analysis and the NTP2 date is very short. There is now negligible risk of the capital price changing.	None
Risk 6b Additional delay costs: Do not reach NTP 2	There is also a risk that, due to planning objections or judicial reviews, the delay in construction could go beyond the longstop date in the contract.	No longer applicable The longstop date has been exceeded. The price offered by Sita and the contractor is now final as the time between this analysis and the NTP2 date is very short. There is now negligible risk of the capital price changing.	None
Risk 7 Swap rate uncertainty	SCC bears the risk of changes to swap rate up to the NTP2 date when the swap will be finalised.	No adjustment – sensitivities run.	None
Risk 8 Foreign Exchange uncertainty	The Council retains FX risk on Sita's EUR and USD capital expenditure until Sita enter into a swap to fix the FX rates.	No adjustment – it is assumed there is a symmetrical uncertainty distribution around the FX rate	None
Risk 9 Air Pollution Control Residues disposal tonnage costs	Due to the hazardous nature of APCR, there is a risk that the cost of disposal could increase after the concession period.	Mott MacDonald advised that the cost included by Sita for APCR disposal is [REDACTED]/tonne and a more reasonable estimate could be [REDACTED]. The Council therefore assumed that the cost should be risk adjusted (post concession only) using the following three point estimate: Lower limit - £ [REDACTED] ([REDACTED])	Option 1 only £ [REDACTED] per tonne [REDACTED] cost of APCR disposal post concession

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		<p>Most likely - £ [redacted] /tonne</p> <p>Upper limit - £ [redacted] /tonne</p> <p>Risk adjusted value is therefore £ [redacted] ([redacted]). This is applicable to Option 1 post concession.</p>	
<p>Risk 10 Third Party Income and costs</p>	<p>The Council are at risk of increases to "other waste elements" in the Sita model that are pass through costs with a [redacted] % margin. They are also at risk for [redacted] % of the movement in recycle disposal (income and costs).</p>	<p>No adjustment, the Council assumed the uncertainty in these income and cost items is symmetrical and so there is no net risk adjustment to the expected value.</p>	<p>None</p>
<p>Risk 11 Delay caused by sub-contractor or SITA</p>	<p>There is a risk that delays caused by the sub-contractors could increase the cost of the contract to SCC.</p>	<p>No adjustment, the Council assumed that a delay could be managed through the existing Waste Disposal Project Agreement with no additional cost to SCC</p>	<p>None</p>
<p>Risk 12 Residual value of plant</p>	<p>Sita will hand over operation of the site after concession 10 years into the expected useful economic life of 25 years for the facility. There is a risk that the asset may be impaired on handover and not capable of operating for 15 more years.</p>	<p>No adjustment, the Council have already applied a risk adjustment in Option 1 for T-payments that include maintenance costs. The Council also have contractual protections in relation to asset maintenance.</p>	<p>None</p>

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Risk 13 Electricity price uncertainty	The Council bears the risk of energy prices	Based on DEFRA's review of the Council's quantitative value for money analysis undertaken in July 2013, electricity price sensitivities have been run to provide an indication of the potential impact on the VFM analysis.	None
Risk 14 ROC achievement uncertainty	There is a risk that the advanced thermal treatment facility will not qualify for the incentive scheme of Renewable Obligation Certificates ("ROCs"). This would result in a loss of income.	No adjustment – it is not possible to estimate probability of not achieving ROC accreditation, so sensitivities have been run	None