

# Surrey County Council Waste PFI Project

## SCC Options Assumptions

V012 011

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## Glossary

- AD – Anaerobic Digester
- APCR – Air Pollution Control Residues
- CRC – Community Recycling Centre
- EFW – Electricity From Waste
- IVC – In Vessel Composting Facility
- UP – Unitary Payment
- WDA – Waste Disposal Authority
- MTFP – Medium Term Financial Plan
- SCC – Surrey County Council
- NPV – Net Present Value
- WCA – Waste Collection Authority

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## 2. Overview

### 2.1. Surrey Waste background

Surrey County Council (SCC) are evaluating a possible deed of variation of the contract agreement with Sita in connection with a waste management PFI project. This includes analysis of the choices and options under consideration by them in relation to a development project for the provision of an 'Eco-park' at Charlton Lane.

A financial options model (the Model) has been developed to facilitate a value for money comparison of these alternative options and this document is intended to articulate the Model's purpose, calculation methodology and associated input and output data.

### 2.2. Purpose of the Model

The Model is intended to facilitate the comparison of two alternative options / scenarios against a base case position in respect of the development of an Eco-park at Charlton Lane with SITA.

The two options under consideration are:

- Option 1 – Sita Base Case (current Waste Disposal PFI contract with Sita) including the proposed Sita variation in respect of the Eco Park Development Project at the Charlton Lane site. On concession end procure operational contracts to run the Eco Park and other waste sites.
- Option 3 - Terminate the current Waste Disposal PFI contract with Sita and procure merchant third party energy from waste capacity for all residual waste.

Please note that there is no longer an Option 2 (build an Eco Park after another procurement) or Option 4 (terminate and procure landfill capacity for all residual waste) as these options are not considered viable.

### 2.3. Key Outputs

The key outputs from the model are the total nominal costs under each option, the net present value of the costs under each option and the differential between the options.

	<b>Net present value (£)</b>	<b>Total nominal cost (£)</b>
Option 1	1,119,859,763	2,334,377,466
Option 3	1,117,994,902	2,380,651,069
Differential between Option 1 and Option 3	1,864,861	(46,273,603)

### 2.4. Model version

The assumptions documented in this SCC Options Assumptions relate to the following model:

- File Name: Options Model v012 011.xlsm
- File Size: 1.78MB
- Date Modified: 1 April 2015

### 2.5. Source files

The Model uses the following files as sources of inputs:

- Sita 11-year financial model
  - File name – Surrey FM2 Var6\_v48b\_11Yrs.xlsm
  - Received – 29 March 2015
  - Owner – Sita Surrey Limited (subsidiary of Suez Environment S.A.)
- Sita 25-year model
  - File name – Surrey FM2 Var3\_v47e\_25Yrs.xlsm
  - Received – 9 March 2015
  - Owner – Sita Surrey Limited (subsidiary of Suez Environment S.A.)

- SCC waste monitoring spreadsheet
  - File name – Waste Monitoring Feb 2014-15 NP to Deloitte 26 March 2015.xlsx
  - Received – 26 March 2015
  - Owner – Surrey County Council
- SCC PFI credits spreadsheet
  - File name – SCC Waste PFI credits clawback Mar-15.xlsx
  - Received – 30 March 2015
  - Owner – Surrey County Council

### 3. Waste flow assumptions

SCC provided the base waste flow assumptions in the SCC waste monitoring spreadsheet, [location – 'Deloitte Tonnage'!C26:AA58]. These inputs are shown in **Error! Reference source not found.**

#### 3.1. Option 1

For Option 1 the waste flows are the same as the base waste flows in **Error! Reference source not found.** with the following differences:

1. Contaminated aggregate – this is waste removed from the gasifier waste inflows prior to gasification treatment as it is not suitable for the process. It is calculated as 6.7% of the total waste flow to the gasifier. The costs of processing this waste are included in the process payments for the gasifier.
2. Pre-treatment waste (EFW) – this is waste removed from the gasifier waste inflows prior to gasification treatment as it is either too large or of the wrong calorific value. It is calculated as 12.3% of the total waste flow to the gasifier and is assumed to be sent to merchant EFW.
3. APCR waste – this is the hazardous part of the residual waste left over after the gasification process. It is calculated as 3.9% of the total waste flow to the gasifier. The costs of disposal are a separate item in the analysis.

4. Bottom ash - this is part of the residual waste left over after the gasification process. It is calculated as 9.2% of the total waste flow to the gasifier.

#### 3.2. Option 3

For Option 3 the waste flows are the same as the base waste flows in **Error! Reference source not found.** with the following differences to reflect that there is no Eco-park:

1. Sita AD waste flows are routed to Merchant AD.
2. Gasification waste is routed to Merchant EFW.
3. Gasification commissioning waste is routed to Merchant EFW.

### 4. Timeline

The Model timeline is annual from 1 April 1999 to 31 March 2042.

The evaluation period of the model is 25 years from 1 April 2015 to 31 March 2040.

The contractual concession period expires on 19 September 2024.

### 5. Appraisal assumptions

The evaluation of the options is the net present value (as at 1 April 2015) discounted using 6.0875%, the compound of 3.5% real discount rate per the HMT Green Book and general inflationary rate of 2.5%.

### 6. Inflation assumptions

The Model uses several inflation indices, these are shown in **Error! Reference source not found.**

The annual inflation rates from 1 April 2016 to 31 March 2025 are sourced from the SCC waste monitoring spreadsheet, [location – 'New Budget Price Inflation'!G2:O11]. For periods after 2024/25, the annual inflation rate is the same as in 2024/25.

Tonnes	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2039/40	2040/41
<b>WASTE SITES</b>																									
Allington EFW	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000
Merchant EFW	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600
Landfill	85,959	85,004	38,183	33,793	32,766	32,339	31,358	32,422	33,508	34,430	34,649	34,480	35,408	36,081	36,734	37,411	38,111	38,834	39,485	40,139	40,794	41,451	42,110	42,770	43,433
Gasifier	-	-	20,664	52,843	54,648	55,484	55,484	55,484	55,484	55,484	55,484	55,484	55,484	55,484	55,484	55,484	55,484	55,484	55,484	55,484	55,484	55,484	55,484	55,484	55,484
Gasifier Commissioning	-	-	26,767	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRC Wood	22,505	22,409	22,470	22,573	22,652	22,693	22,594	22,701	22,811	22,903	22,925	22,908	23,002	23,070	23,135	23,204	23,274	23,347	23,412	23,478	23,544	23,610	23,677	23,743	23,810
CRC Mattresses	654	652	653	656	659	660	657	660	663	666	667	666	669	671	673	675	677	679	681	683	685	686	688	690	692
CRC Hazardous waste	3,194	3,180	3,189	3,204	3,215	3,221	3,207	3,222	3,237	3,250	3,254	3,251	3,264	3,274	3,283	3,293	3,303	3,313	3,323	3,332	3,341	3,351	3,360	3,370	3,379
CRC Rigid Plastics	121	120	120	121	121	122	121	122	122	123	123	123	123	124	124	124	125	125	125	126	126	127	127	127	128
Jacques	2,487	2,477	2,483	2,495	2,503	2,508	2,497	2,509	2,521	2,531	2,534	2,532	2,542	2,550	2,557	2,564	2,572	2,580	2,587	2,595	2,602	2,609	2,617	2,624	2,631
Sweeptech	17,687	17,612	17,660	17,741	17,802	17,835	17,757	17,841	17,927	18,000	18,017	18,004	18,078	18,131	18,182	18,236	18,291	18,349	18,400	18,452	18,504	18,556	18,608	18,660	18,713
<b>Total residual waste outflows</b>	<b>270,207</b>	<b>269,053</b>	<b>269,790</b>	<b>271,026</b>	<b>271,966</b>	<b>272,460</b>	<b>271,274</b>	<b>272,560</b>	<b>273,873</b>	<b>274,988</b>	<b>275,252</b>	<b>275,048</b>	<b>276,169</b>	<b>276,983</b>	<b>277,772</b>	<b>278,590</b>	<b>279,437</b>	<b>280,311</b>	<b>281,098</b>	<b>281,888</b>	<b>282,680</b>	<b>283,474</b>	<b>284,270</b>	<b>285,069</b>	<b>285,870</b>
<b>RECYCLING SITES</b>																									
Hard core	24,564	24,459	24,526	24,639	24,724	24,769	24,661	24,778	24,898	24,999	25,023	25,005	25,107	25,181	25,252	25,327	25,404	25,483	25,555	25,627	25,699	25,771	25,843	25,916	25,989
CRC dry recycling	27,853	27,734	27,810	27,937	28,034	28,085	27,963	28,095	28,231	28,346	28,373	28,352	28,467	28,551	28,633	28,717	28,804	28,894	28,976	29,057	29,139	29,221	29,303	29,385	29,467
CRC green / Composting	40,590	40,417	40,528	40,713	40,855	40,929	40,751	40,944	41,141	41,309	41,348	41,318	41,486	41,608	41,727	41,850	41,977	42,108	42,227	42,345	42,464	42,584	42,703	42,823	42,944
WCA Recycled - Food	181,285	180,511	181,005	181,835	182,466	182,797	182,002	182,864	183,745	184,493	184,671	184,534	185,286	185,832	186,362	186,911	187,479	188,066	188,594	189,124	189,655	190,188	190,722	191,258	191,796
Merchant AD	28,946	28,822	2,509	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sita AD	-	-	26,392	29,034	29,135	29,188	29,061	29,198	29,339	29,458	29,487	29,465	29,585	29,672	29,757	29,844	29,935	30,029	30,113	30,198	30,283	30,368	30,453	30,539	30,624
Trade Waste Recycled	1,439	1,433	1,437	1,444	1,449	1,451	1,445	1,452	1,459	1,465	1,466	1,465	1,471	1,475	1,480	1,484	1,488	1,493	1,497	1,502	1,506	1,510	1,514	1,518	1,523
<b>Total Recycled waste outflow</b>	<b>304,678</b>	<b>303,376</b>	<b>304,207</b>	<b>305,601</b>	<b>306,662</b>	<b>307,219</b>	<b>305,882</b>	<b>307,332</b>	<b>308,813</b>	<b>310,070</b>	<b>310,368</b>	<b>310,138</b>	<b>311,402</b>	<b>312,320</b>	<b>313,210</b>	<b>314,133</b>	<b>315,087</b>	<b>316,073</b>	<b>316,961</b>	<b>317,852</b>	<b>318,745</b>	<b>319,640</b>	<b>320,539</b>	<b>321,439</b>	<b>322,342</b>

Table 1 – Waste flows from the SCC waste monitoring spreadsheet

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
General inflation index	0.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Recycling credit inflation index	0.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Contract inflation index	0.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Landfill gate fee contract inflation index	0.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Landfill tax inflation	0.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Haulage and green contract inflation index	0.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Pay inflation index	0.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Commercial recharge index	0.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Actual inflation index	0.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%




Table 2 – Inflation indices from the SCC waste monitoring spreadsheet



## 7. Cost assumptions

The table below describes the cost assumptions for each Option. The risk adjustments applied to these costs are described in Section 8.

Cost item	Nominal cost (£) after risk adjustment		Assumption
	Option 1	Option 3	
<b>Contract costs</b>			
Total T (or equivalent)	(863,660,877) See risk 2	(659,453,678) See risk 2	<p><b>Option 1</b></p> <p>Up until 19 September 2024, T is a direct input from the 11-year Sita financial model [location - SCCRev!K9:V9]. In addition, a further adjustment has been included reflecting savings on the eco-park operating costs during concession. This is calculated as 50% of the difference between Mott's [REDACTED] costs (3% of £60m capex) and Sita's profile of eco-park costs during concession from Sita's model. This is consistent with written acceptance from SITA received by SCC, and Mott's advice.</p> <p>From 19 September 2024 until the end of the evaluation period (31 March 2040), T is assumed as the same as the T in Option 3 (that is the first year T payment inflated to the correct period) plus estimated costs for the Eco-park T element including lifecycle costs. The Eco-park operating costs are estimated based on the mid-point of Mott's [REDACTED] assumptions (3% of £60m capex); the lifecycle costs from Sita's model are added to these to give total eco-park fixed costs post concession.</p> <p><b>Option 3</b></p> <p>For 2015/16, T in Option 3 is the same as in Option 1, sourced from the Sita 11-year financial model [location - SCCRev!M9]. This assumes the T payment in the first year is equivalent to operating all sites except the Eco-park in the Sita model. From 1 April 2016, T is inflated using the contract costs inflation index until the end of the evaluation period.</p> <p><b>Risk adjustment</b></p> <p>See risk area 2 for risk adjustment applied.</p>
P (CRC process costs)	[REDACTED] See risk 2	[REDACTED] See risk 2	<p>The initial cost per tonne for P (CRC process costs) is from the SCC waste monitoring spreadsheet [location - P!\$L\$25]. The value is £ [REDACTED] real as at 1 April 2015.</p> <p>The cost per tonne is subject to contract inflation from 1 April 2016.</p> <p>The cost per tonne is multiplied by total CRC waste (see waste flow assumptions).</p> <p><b>Risk adjustment</b></p>

Cost item	Nominal cost (£) after risk adjustment		Assumption
	Option 1	Option 3	
			See risk area 2 for risk adjustment applied.
Recycling adjustment	36,541,472 See risk 10	36,541,472 See risk 10	Recycling adjustment is a direct nominal input from the SCC waste monitoring spreadsheet for the entire evaluation period. It is the same for all options, [location - <i>New Budget Tonnages'!H32:AE32</i> ].  <b>Risk adjustment</b> See risk area 10 for risk adjustment applied.
Recycling Incentive	(2,649,150) See risk 10	(2,649,150) See risk 10	Recycling incentive is a direct nominal input from the SCC waste monitoring spreadsheet for the entire evaluation period. It is the same for all options, [location - <i>New Budget Tonnages'!H37:AE37</i> ].  <b>Risk adjustment</b> See risk area 10 for risk adjustment applied.
Electricity income post concession	52,261,528 See risk 13	- See risk 13	Electricity income is a direct nominal input from the Sita 25-year model for periods after the concession end, [location - <i>SCCRev'!O20:AK20</i> ].  This income is only applicable to Option 1.  <b>Risk adjustment</b> See risk area 13 for risk adjustment applied.
Landfill gate fee	 See risk 3	 See risk 3	<b>Option 1</b> The initial cost per tonne for landfill gate fee is from the SCC waste monitoring spreadsheet [location - <i>Rates'!D7:D8</i> ]. The value is  real as at 1 April 2015.  The cost per tonne is subject to contract inflation from 1 April 2016.  The cost per tonne is multiplied by the landfill waste (see waste flow assumptions).  <b>Option 3</b> The costs for Option 3 are the same as Option 1 above.

Cost item	Nominal cost (£) after risk adjustment		Assumption
	Option 1	Option 3	
			<p><b>Risk adjustment</b></p> <p>See risk area 3 for risk adjustment applied.</p>
Landfill tax	(140,313,058) See risk 3	(133,575,628) See risk 3	<p>The initial cost per tonne is from the SCC Waste Monitoring spreadsheet [location - Rates!\$D\$10]. The value is £82.60 real as at 1 April 2015.</p> <p>Cost per tonne inflated with the landfill tax inflation index from 1 April 2016 until the end of the evaluation period.</p> <p><b>Option 1</b></p> <p>The cost per tonne is multiplied by the landfill waste and APCR tonnages (see waste flow assumptions).</p> <p><b>Option 3</b></p> <p>Tonnages in Option 3 are the same as Option 1 but exclude APCR tonnages.</p> <p><b>Risk adjustment</b></p> <p>See risk area 3 for risk adjustment applied.</p>
Composting	(██████████)	(██████████)	<p>The initial composting cost per tonne is from the SCC Waste Monitoring spreadsheet [location - Rates!D14:D18]. The value is ██████████ real as at 1 April 2015.</p> <p>Cost per tonne is inflated with the haulage and green inflation index from 1 April 2016 until the end of the evaluation period (2039/40).</p> <p>The cost per tonne is multiplied by Green CRC waste (see waste flow assumptions).</p>
Business rates	(41,682,767)	(27,079,549)	<p><b>Option 1</b></p> <p>Business rates are a nominal input from the SCC Waste Monitoring spreadsheet for the whole evaluation period, [location - 'New Budget Summary'!I4:AJ4].</p>

Cost item	Nominal cost (£) after risk adjustment		Assumption
	Option 1	Option 3	
			<p>An additional £70,000, real as at 1 April 2015, is included in business rates as an estimate for the business rates at the Earlswood site. This additional amount is a user input in the options model and subject to general inflation from 1 April 2016.</p> <p><b>Option 3</b></p> <p>Business rates are from the SCC Waste Monitoring spreadsheet for the whole evaluation period, as for Option 1.</p> <p>Business rates relating to the eco-park are deducted from the rates in the Waste Monitoring spreadsheet, as the site will no longer be developed. These rates are from the Sita 25 year model for the whole evaluation period, [location – 'CL Gas:CL AD!K84:AL84].</p> <p>The additional rates for the Earlswood site are also included and are calculated the same as for Option 1.</p>
Insurance costs			<p><b>Option 1</b></p> <p>Insurance costs are a direct nominal input from the Sita 25 year model, [location – 'SCCRev!M218:AM218].</p> <p><b>Option 3</b></p> <p>Insurance costs are the same as in Option 1 but with eco-park and construction insurance removed (both sources from the Sita 25 year model [locations – 'Overheads!L546:AL546, 'Overheads!L490:AL490]).</p>
Waste audit and market testing	(410,210)	-	<p>Waste audit and market testing is a direct nominal input from the SCC waste monitoring spreadsheet for the entire evaluation period, [location – 'New Budget Tonnages!H49:A149].</p> <p>It is only applicable to Option 1.</p>
Solid Digestate & APCR disposal	(21,308,494)	-	<p>The initial solid digestate cost per tonne is from the SCC Waste Monitoring spreadsheet [location – 'Rates!D56]. The value is £ real as at 1 April 2015.</p> <p>Cost per tonne is inflated with the contract inflation index from 1 April 2016 until the end of the evaluation period (2039/40).</p>

Cost item	Nominal cost (£) after risk adjustment		Assumption
	Option 1	Option 3	
	APCR see risk 9		<p>The cost per tonne is multiplied by solid digestate waste (see waste flow assumptions).</p> <p>The initial APCR cost per tonne is from the SCC Waste Monitoring spreadsheet [location – 'APCR'!\$L\$19]. The value is £ [REDACTED] real as at 1 April 2015.</p> <p>Cost per tonne is inflated with the contract inflation index from 1 April 2016 until the end of the evaluation period (2039/40).</p> <p>The cost per tonne is multiplied by APCR waste (see waste flow assumptions).</p> <p><b>Risk adjustment</b></p> <p>See risk area 9 for risk adjustment applied.</p>
Bottom ash disposal	[REDACTED]	-	<p>The initial cost per tonne of bottom ash disposal is £ [REDACTED] and is a user input in the SCC options spreadsheet. This rate is current contract price offer from Sita. The cost per tonne is inflated using the contract price index.</p> <p>The cost per tonne is multiplied by the bottom ash waste which is calculated as 9.2% of the total gasifier waste.</p> <p>Bottom ash disposal costs are only applicable to option 1.</p>
Other waste costs (includes Ash Vale)	(35,308,495)	(35,308,495)	<p>The following other waste costs are direct nominal inputs into the Model:</p> <p>Other waste – Ash Vale (to 2016/17) [location – 'New Budget Summary'!J70:AJ70]</p> <p>Other waste [location - 'New Budget Summary'!J31:AJ31]</p>
Gasification (P3)	[REDACTED] See risk 2	-	<p>The initial cost per tonne for P3 gasification is from the SCC waste monitoring spreadsheet, [location – 'Gasification P3'!\$L\$14]. The value is £ [REDACTED] real as at 1 April 2015.</p> <p>The cost per tonne is subject to contract inflation from 1 April 2016.</p> <p>The cost per tonne is multiplied by the gasifier tonnages (see waste flow assumptions).</p>

Cost item	Nominal cost (£) after risk adjustment		Assumption
	Option 1	Option 3	
			<p><b>Risk adjustment</b></p> <p>See risk area 2 for risk adjustment applied.</p>
Anaerobic digester (P3)	(████████)	-	<p>The initial cost per tonne for P3 anaerobic digester is from the SCC waste monitoring spreadsheet, [location – 'AD P3!\$L\$14]. The value is £████████ real as at 1 April 2015.</p> <p>The cost per tonne is subject to contract inflation from 1 April 2016.</p> <p>The cost per tonne is multiplied by the AD tonnages (see waste flow assumptions).</p> <p><b>Risk adjustment</b></p> <p>See risk area 2 for risk adjustment applied.</p>
Commissioning costs	(5,862,707)	-	<p>Option 1 includes the costs of the commissioning phase of the eco-park. These are a direct nominal input from the Sita 25-tear model, [location – 'SCCRev!M8:AM8].</p> <p>Commissioning costs are added to Option 1 because they are excluded from the T payments and are a separate fixed element of the annual unitary charge.</p>
Extra Eco Park Land Cost	(████████)	-	<p>Option 1 includes £████████ in the first period for an overage payment due on the Charlton Lane site once the Council have decided to develop the site. SCC estimated this cost based on the size of the site and the cost per area from similar sites. It is a user input in the Model.</p> <p>Note that the Council have explicitly excluded residual assets or liabilities from the VFM analysis because the Council have assumed the facility will continue to operate after the evaluation period. Therefore, decommissioning costs and residual value of the site will fall outside the evaluation period.</p>
Allington (third party EFW plant)	(████████)	(████████)	<p>The initial cost per tonne is from the SCC Waste Monitoring spreadsheet, [location – 'Rates!D29:D30]. The value is £████████ real as at 1 April 2015.</p> <p>Cost per tonne inflated with the contract inflation index from 1 April 2016 until the end of the model timeline. Note that the current contract price is guaranteed until 2019 but the Council assume the equivalent price can be re-procured at that point.</p>




Cost item	Nominal cost (£) after risk adjustment		Assumption
	Option 1	Option 3	
			<p>The cost per tonne is multiplied by the Allington EFW tonnage (see waste flow assumptions).</p> <p><b>Risk adjustment</b></p> <p>As this cost is the same under both options, no risk adjustment has been applied for the value for money analysis. However to the extent this cost analysis is used by the Council for assessing affordability, consideration should be given to the potential application of risk adjustment 3 (Merchant EFW).</p>
Merchant EFW	<p>(██████████)</p> <p>See risk 3</p>	<p>(██████████)</p> <p>See risk 3</p>	<p>The initial cost per tonne for merchant EFW is £██████████ per tonne, a user input to the SCC spreadsheet (this comprises a gate fee at Tilbury RDF plant of £██████████ per tonne plus ██████████% margin and an average haulage cost of £██████████ per tonne plus ██████████% margin). This is based on the current offer the Council have from Sita to process EFW waste through merchants and is fixed for the next two years.</p> <p>The cost per tonne is multiplied by the waste flows for merchant EFW. In addition under Option 1 there is additional waste which is removed from the gasifier waste during pre-treatment, this is 12.34% of the total gasifier waste. Under option 3 all gasifier waste is sent to merchant EFW.</p> <p><b>Risk adjustment 3</b></p> <p>The base assumption for merchant EFW was replaced following the application of the risk adjustments in the Model. The cost of merchant EFW inflates with contract inflation until 31 March 2017. From 1 April 2017, the cost follows ██████████% below the cost of landfill (including haulage, tax, gate fees and risk adjustments) until the end of the evaluation period. This mechanism is the same under both options.</p>
Jacques/ Sweeptech	<p>(██████████)</p>	<p>(██████████)</p>	<p><b>Jacques</b></p> <p>The initial cost per tonne for the Jacques site is from the SCC Waste Monitoring spreadsheet [location – 'Rates'!D49:D50]. The value is £██████████ real as at 1 April 2015.</p> <p>Costs per tonne inflate with the contract inflation index from 1 April 2016 until the end of the model timeline.</p> <p>The cost per tonne is multiplied by the Jacques tonnage (see waste flow assumptions).</p> <p><b>Sweeptech</b></p>



Cost item	Nominal cost (£) after risk adjustment		Assumption
	Option 1	Option 3	
			<p>The initial cost per tonne for the Sweeptech site is from the SCC Waste Monitoring spreadsheet [location – 'Rates'!D52:D53]. The value is £ [REDACTED] real as at 1 April 2015.</p> <p>Costs per tonne inflate with the contract inflation index from 1 April 2016 until the end of the model timeline.</p> <p>The cost per tonne is multiplied by the Sweeptech tonnage (see waste flow assumptions).</p>
Bulk haulage - landfill	[REDACTED]	[REDACTED]	<p>The initial cost per tonne for bulk haulage landfill is from the SCC waste monitoring spreadsheet, [location – 'Rates'!D11:D12]. The value is £ [REDACTED] real as at 1 April 2015.</p> <p>The cost per tonne is subject to contract inflation from 1 April 2016. No risk adjustment assumed as there is a good supplier market</p> <p>The cost per tonne is multiplied by the landfill tonnage (see waste flow assumptions).</p>
Bulk haulage - recycling	[REDACTED]	[REDACTED]	<p>Bulk haulage for recycling is a direct nominal input from the SCC waste monitoring spreadsheet for the entire evaluation period, [location – 'New Budget Summary'!J54:AJ54].</p> <p>Note, although this is tonnage dependent the actual cost per tonne varies and is not traceable to a specific waste flow.</p>
Bulk haulage - Allington	[REDACTED]	[REDACTED]	<p>The initial cost per tonne for bulk haulage to Allington is from the SCC waste monitoring spreadsheet, [location – 'Rates'!D38:D39]. The value is £ [REDACTED] real as at 1 April 2015.</p> <p>The cost per tonne is subject to contract inflation from 1 April 2016.</p> <p>The cost per tonne is multiplied by the Allington EFW tonnage (see waste flow assumptions).</p>
Additional Capex for Option 3	-	(3,134,139)	<p>Option 3 includes additional capital costs to reflect the costs of developing Slyfield if SCC terminates the contract. The costs are an input from the 25-year Sita model from the Slyfield RTS and CA sites. This development would take place under the Sita contract under Option 1 and hence be included in T. The financing cost of the council funding this development themselves is assumed 3.25%.</p>

Cost item	Nominal cost (£) after risk adjustment		Assumption
	Option 1	Option 3	
<b>Recycling credits</b>	(345,338,515)	(345,338,515)	<p>The initial recycling credit per tonne is from the SCC Waste Monitoring spreadsheet, [location – 'Rates'!D2]. The value is £57.16 real as at 1 April 2015.</p> <p>Recycling credit per tonne inflates with the recycling credit inflation index from 1 April 2016 until the end of the model timeline.</p> <p>The cost per tonne is multiplied by the WCA waste recycled (excluding food) tonnage (see waste flow assumptions).</p>
<b>Other central costs</b>			Central costs are direct nominal inputs from the SCC Waste Monitoring spreadsheet for the entire evaluation period. The location of each input is set out below.
Central support costs	(1,364,738)	(1,364,738)	Location – 'New Budget Summary'!J62:AJ62
Commercial waste	40,185,601	40,185,601	Location – 'New Budget Summary'!J9:AJ9
Closed landfill	(6,516,344)	(6,516,344)	Location – 'New Budget Summary'!J61:AJ61
Waste minimisation project money	(6,831,553)	(6,831,553)	Location – 'New Budget Summary'!J60:AJ60
Waste management team - salaries budget	(26,017,874)	(26,771,981)	<p>Location – 'Waste Group'!E4:AE4</p> <p>Option 3 has an additional 10% uplift added to the waste management salary costs to reflect the fact that any replacement contract is likely to be shorter and require greater client input, for example as a result of procurement and market testing every 5 years. This 10% uplift has also been applied to the post concession period of option 1.</p>
Waste management	(471,958)	(471,958)	Location – 'Waste Group'!E5:AE5

Cost item	Nominal cost (£) after risk adjustment		Assumption
	Option 1	Option 3	
team - non-salaries budget			
<b>Non contract costs</b>			<p>With the exception of Other waste – food site facilities, the following non-contract other waste costs direct nominal inputs from the SCC Waste Monitoring spreadsheet between 2015/16 and 2024/25, the concession end.</p> <p>From 1 April 2025 until the end of the model timeline, these costs are inflated: the indices and sources of the inputs are listed below</p>
Other Waste - WCA Food Incentive	(35,338,475)	(35,338,475)	Other waste – WCA food incentive (fixed), no inflation applied, [location – 'New Budget Summary'!K10:T11].
Other Waste – Merchant AD	<p>██████████</p> <p>See risk 3</p>	<p>██████████</p> <p>See risk 3</p>	<p>The initial cost per tonne for Merchant AD is from the SCC waste monitoring spreadsheet, [location – 'Rates'!D43:D47]. The value is £██████████ real as at 1 April 2015, comprising £██████████ haulage and £██████████ gate fee.</p> <p>The cost per tonne is subject to contract inflation until 31 March 17. On 1 April 2017 the cost per tonne is set to £██████████ in nominal terms, comprising a ██████████ gate fee of £██████████ (real) and the haulage fee of £██████████ (real) inflated for 2 years at 2.5%. The ██████████ gate fee is used because SCC have assumed the current price they have secured for two years ██████████. The adjustment in 2017/18 brings the cost in line with the UK median gate fee per the WRAP report (£41). The revised cost per tonne is inflated from 1 April 2017 using contract inflation.</p> <p>The cost per tonne is multiplied by the AD tonnages (see waste flow assumptions).</p> <p>Note that food waste recycling tonnages go to the Sita AD in Option 1 from 2017/18. In all other options, the tonnages continue to the food site facilities.</p> <p><b>Risk adjustment</b></p> <p>See risk area 3 for risk adjustment applied.</p>
Other Waste - Contingency	-	-	Other waste – Contingency, no inflation applied, [location – 'New Budget Summary'!K46:T46].

Cost item	Nominal cost (£) after risk adjustment		Assumption
	Option 1	Option 3	
Other Waste - Clinical	(2,790,905)	(2,790,905)	Other waste – Clinical, no inflation applied, [location – 'New Budget Summary'!K63:T63].
Other Waste - Out County Income	570,747	570,747	Other Waste - Out County Income, general index applied from 1 April 2025 until the end of the model timeline, [location – 'New Budget Summary'!K66:T66].
Tipping Away	(2,680,170)	(2,680,170)	Other waste – tipping away, no inflation applied, [location – 'New Budget Summary'!K13:T13].
Contribution to WCA recycling credits	(3,569,331)	(3,569,331)	Contribution to WCA recycling credits, recycling credit inflation index applied from 1 April 2025 until the end of the model timeline, [location – 'New Budget Summary'!K14:T14].
<b>Additional costs</b>			
Termination Payment	-	 See risk 4	<p>In Option 3 where the contract terminates, the termination payment is calculated in accordance with Schedule 9 (part ii) of the Project Agreement, which sets out the equation to be used under Voluntary Termination.</p> <p>The calculation and the inputs are shown in Appendix 3.</p> <p>The value of the payment has been calculated as £ .</p> <p>Termination payment is due 1 year after the contract is terminated or 1 April 2016, no inflation is applied.</p>  <p>Option 1 has no termination costs.</p> <p><b>Risk adjustment</b></p> <p>See risk area 4 for risk adjustment applied.</p>

Cost item	Nominal cost (£) after risk adjustment		Assumption
	Option 1	Option 3	
Procurement Costs	(1,750,000)	(2,500,000)	<p><b>Option 1</b></p> <p>Procurement costs associated with the end of the contract are a direct nominal input from the SCC Waste Monitoring spreadsheet, [location – 'New Budget Summary'!J48:AJ48]</p> <p><b>Option 3</b></p> <p>Procurement costs associated with termination of the Sita contract are a direct user input; this is £1.5 million in 2015/16 comprising £1 million internal procurement related costs and £500,000 of external legal and other advisor costs. After 1 April 2016 there is an additional £250,000 cost incurred every 5 years until the end of the evaluation period. This recurring costs represents the activity the Council would need to undertake to re-procure the operating contract for the waste treatment facilities every 5 years.</p>
[REDACTED]	[REDACTED]	-	[REDACTED]

## 8. Risk adjustments

### 8.1. Risk workshop

In order for the Council to financially quantify specific risks as key element of the value for money analysis (in line with HM Treasury Green Book guidance), we facilitated a risk workshop on 13 March 2015 with the Council and Mott MacDonald (their technical advisors). At the workshop the Council reviewed all risk areas previously identified at the risk workshops held on 4 June 2013 and 27 October 2013 and considered any new risks arising in the intervening period.

To quantify the level of risk, the Council used a three point estimate approach.

The risks considered are documented in the SCC Risk Assumptions document, along with the rationale for the adjustments made.

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## 9. PFI credits

### 9.1. Future PFI credits

Future PFI credits is a source of income for option 1 only up to the end of the SITA contract (19 September 2024).

The Options Spreadsheet has annual inputs which have been provided by SCC in the PFI credits spreadsheet.

### 9.2. Claw Back of PFI Credits already received

There is potential for SCC to be liable for the PFI Credits which they have already received if they terminate the contract with Sita. Consequently, SCC have provided annual inputs for the cost of this claw-back over the 25 years in the PFI credits spreadsheet. This affects Option 3 only.