



MARCH 2023

DISTRICT- LANDFILL SITE

**GARDEN ROUTE DISTRICT MUNICIPALITY REVISED DETERMINATION OF COST
RECOVERING TARIFFS FOR BUDGET PURPOSES APPLICABLE TO THE
PARTICIPATING MUNICIPALITIES**

11 March 2023

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Garden Route District Municipality
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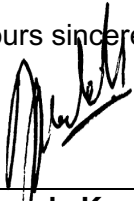
**REPORT: GARDEN ROUTE DISTRICT MUNICIPALITY REVISED DETERMINATION
OF COST RECOVERING TARIFFS FOR BUDGET PURPOSES APPLICABLE TO THE
PARTICIPATING MUNICIPALITIES**

Our report and findings are for the exclusive use of duly authorised representatives of the Municipality and Municipalities who are to the Regional Landfil Site. No other party is entitled to rely on any of the views expressed in the report.

Mubesko Africa will not accept any responsibility to any other party to whom our report may be disclosed or disseminated.

We applied reasonable care and skill in rendering the services. However, the procedures undertaken by us in performing this work did not constitute an examination in accordance with South African Auditing Standards.

Yours sincerely



Nico de Kock CA(SA)
Managing Director
Mubesko Africa (Pty) Ltd

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1. INTRODUCTION

MUBESKO AFRICA was appointed in terms of the Garden Route District Municipality Tender GRDM 30/21-22 to provide the municipality with accounting support to revise the previous February 2021 interim tariff determination document compiled by Mubesko Africa.

The Chief Financial Officer instructed Mubesko to do a revised cost recovery calculation to determine tariffs after the construction phase of the project was allocated to a successful bidder and that reliable construction cost is now available as a result of the offered bidding price.

The emphasis of these tariffs is to give a more reliable indication to the participating municipalities to serve as a basis for assisting them in preparing their 2023/24 MTREF budgets.

2. DISCLAIMER

This report is neither a legal interpretation nor a statement of Mubesko Africa (Pty) Ltd policies.

The information, amounts and recommendations revealed and disclosed in this document are based on documentation and orally conveyed information received from senior management of the municipality and Zutari, the appointed consultant engineer for this project, as well as operating cost information gathered from municipalities operating existing landfill sites which are more or less equal in size.

Calculations presented are interim calculations and estimations and are, for this reason, no warranty of any kind regarding the information's accuracy, adequacy, validity, reliability or completeness.

To the maximum extent permitted by applicable law, Mubesko Africa (Pty) Ltd shall not be liable for any direct, indirect, incidental, consequential or punitive damages or any loss of profits or revenues, whether incurred directly or indirectly, goodwill or other intangible losses resulting from the content of this report.

For planning purposes and in the context of the instruction to determine interim tariffs to be used by the participating B- Municipalities for their budget purposes, it is believed, however, that the calculations and estimations used to determine the interim tariffs would suffice the decision-makers need for information to make an informed decision and would not negatively influence the integrity and correctness of this report.

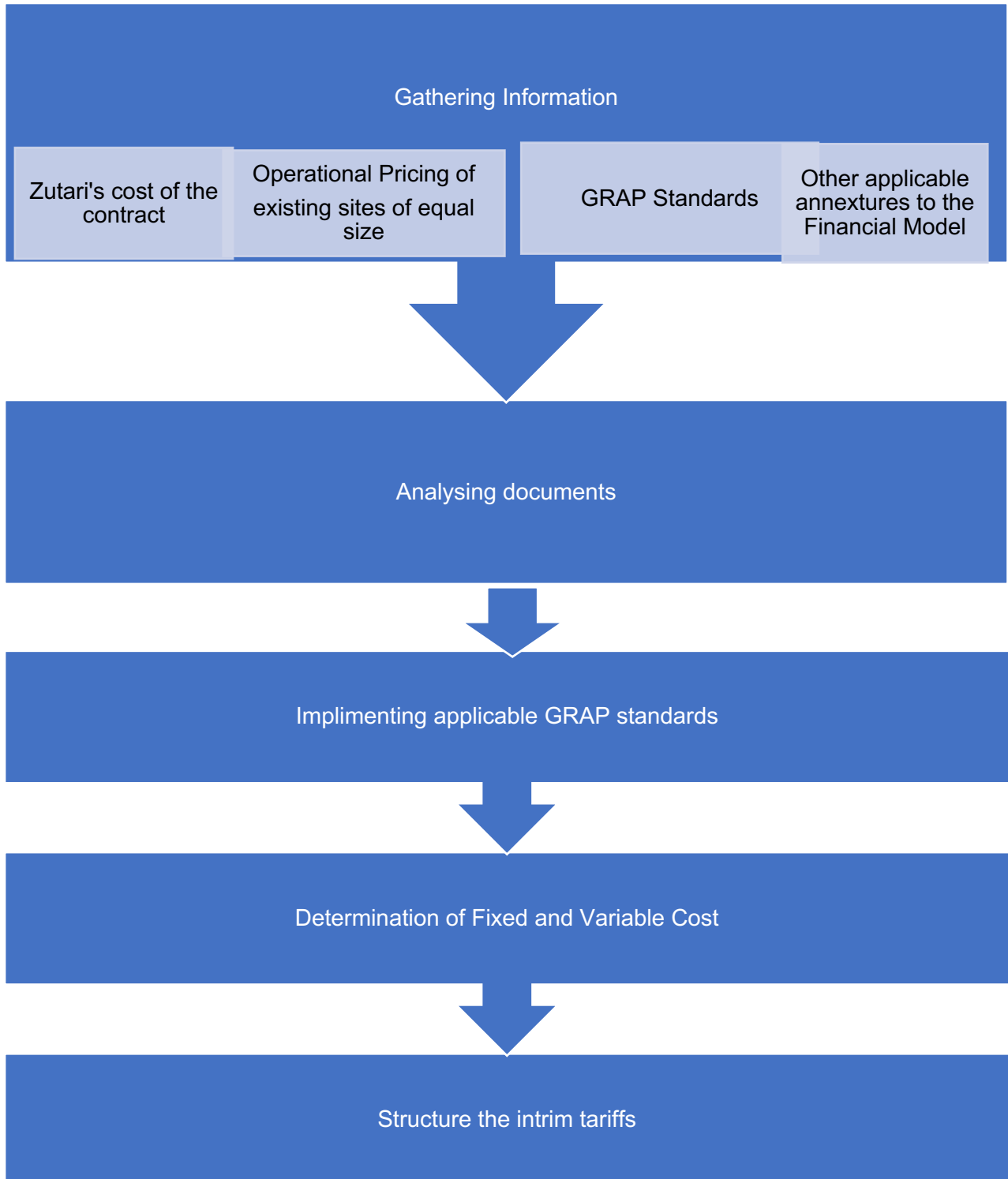
3. PURPOSE

This report's purpose is to provide the following outcomes:

- Indicate the cost as reflected in the contract cost structure of the allocated successful tenderer for the construction phase as presented by Zutari.
- In addition to the construction cost, make provision for the operational cost based on the estimation of available equal in size landfill sites which are already operational.
- Include the GRAP 19 and iGRAP 2 principles to recover the cost of the future rehabilitation of the landfill site when reaching the end of its useful life.
- Determine the 10% administration fee for delivering the service by the Garden Route District Municipality, which must be included in the tariff structure.

- Indicate the impact of the provisions and reserves.
- Indicate the pro-rata allocation per B Municipality of the tariffs based on historical tonnage waste generated per individual Municipality.

4. METHODOLOGY FOLLOWED



The emphasis of the analysis is solely to determine interim tariffs based on the information and calculations received from Zutari, the operational cost of existing operational landfill sites in use, and making provision for compulsory GRAP standards.

Therefore, it must be noted that the result of this interim tariff structure is **temporally** in nature and would only **be applicable and fixed for the first year since operations have commenced**.

After a year of operations, a history of the actual cost would then be available, with which more accurate and reliable numbers make it possible to determine reliable long-term **future tariffs, which would be revised annually**.

5. FINANCIAL MODEL

5.1 Borrowing cost

According to the Engineer's report, the landfill cell is designed with a capacity to be of service for 25 years. (4 cells of 25 hectares in size with a capacity to be filled 12 meters in height), at an all-inclusive price of R261 083 596.31.

The Garden Route District Municipality embarked on a procurement process to obtain borrowing to finance the facility's construction. After an intensive tender adjudication process and after a meeting with all the participating municipalities to analyse and determine the best and most appropriate tendered loan option, the meeting collectively decided unanimously that the preferred option of the tenders offered would be clearly the 10-year loan with an all-in floating rate of 6.89% offered by Standard Bank. The floating rate offered reads as follows:

7. INTEREST

- 7.1 The Loan Facility shall bear interest at a variable rate of 2.01 % (two-point zero one percent) above the 3-month JIBAR rate per annum. This rate is the indicative rate as per our proposal dated 21 June 2022 and subject to change on the date of first drawdown of the Loan Facility. The final interest rate will be determined on the date of draw down and advised by the Bank to the Borrower in writing on the date of the date of first drawdown of the Loan Facility or as soon as practically possible thereafter.

Since the municipalities preferred the floating rate option, it could have an impact on the future cost-recovering tariff to be charged, which include the cost of the loan, because Section 28 (6) of the Municipal Financial Management Act clearly stipulates that tariffs may not be increased during a financial year once the tariff was determined in terms of the approved budget. Therefore, this burden must be clarified with the participating municipalities how future possible interest rate increases and decreases would be recovered and or refunded should rate changes occur.

The current three months JIBAR rate (The SARB is the administrator of the Johannesburg Interbank Average Rate (**Jibar**), which is widely used as a reference rate) is 7.47% at present. Unfortunately, the interest rates hike due to inflation pressure caused the original rate of 6.89% to increase materially and is the current floating rate to calculate the borrowing cost (interest and redemption) $7.47\% + 2.01\% = 9.48\%$. This is now 3.41% higher than the 6.89% initially tendered offer.

Broadly, economist predicts that the higher interest rates have reached their peak and that rates could be expected to follow a downward trend soon.

For calculation purposes, the CAPEX amount of R261 083 596 at a current borrowing rate of 9.48% is increased with .25% and .50% and decreased with .25%, .50% and 1.00%, respectively, to discount upward or downward further future rate adjustments and is the annual borrowing cost for ten years as follows::

6.89% = R36 983 643.26

9.48% = R41 545 623.99

9.23% = R41 094 851.86

8.98% = R40 646 263.02

8.48% = R39 755 699.70

9.73% = R41 998 563.22

9.98% = R42 453 653.29

5.2 Operating cost

It is agreed between the parties that the operation of the landfill site would be outsourced after the completion of the construction phase.

Therefore, the cost of operating the landfill site can only be accurately determined after a procurement process, and a service provider is appointed.

As an interim measurement, the running operating cost of existing landfill sites of comparable size has been obtained.

The latest tenderd operational cost estimation from a specialist amounting to an annual amount of R6 660 000, which is based on the 2021/22 latest tender prices for a totally outsourced service. If the amount is adjusted for inflation for 2022/23 with 6% and 2023/24, and 7%, respectively, the amount escalates to R7 485 720.

This amount, however, does not include chipping and crushing at this stage.

Should the municipalities, however, be in favour of not providing this service themselves, the comprehensive (inclusive of all the applicable equipment) cost for chipping and crushing is R140 per ton of rubble and R500 per ton of garden refuse, respectively. Therefore, based on the estimated tonnage used in the previous Private Party calculations, chipping (7146 ton @ R500 ton) = R3 573 000 and crushing (13 764 @ R140 ton) = R1 925 960 must be added to the R7 485 720, which result then to a total amount of R12 984 680 per annum. This total cost reflects the current cost structure of similar projects.

Alternative 1 from a specialist (without chipping and crushing)

Chipping	-
Crushing	-
Waste management	<u>R7 485 720</u>
Total	R7 485 720

Alternative 2 from a specialist (with chipping and crushing)

Chipping	R 3 573 000
Crushing	R1 925 000
Waste Management	<u>R7 485 720</u>
Total	R12 983 7200

5.3 Provision for rehabilitation

In terms of the General Recognised Accounting standards (GRAP 19), provision for rehabilitation must be accounted for. This, together with conditions in terms of the Water Act and Conservation Act, implies that rehabilitation is a compulsory statutory responsibility of the municipality.

According to the Zutari report, the landfill site would cover an area of 25 hectares on a slope of 1:4, with the result that an area of 208 0000 m² would give a useful life of 25 years, after which the site has to be rehabilitated. According to the latest rehabilitation cost per m², the present cost of rehabilitation would amount to approximately R72 million.

When escalating with 5% per annum for inflation adjustments, the future amount would amount to R243.8 million.

Discounted Provision of the Future inflation adjusted Rehabilitation Cost :							R20 091 299.27
Year	Bond Rate	Future discounted value of Provision	Annual increase in the Provision = Annual contribution to Provision				
1	10.50%	R22 200 885.69	R2 109 586.42				
2	10.50%	R24 531 978.69	R2 331 093.00				
3	10.50%	R27 107 836.45	R2 575 857.76				
4	10.50%	R29 954 159.27	R2 846 322.83				
5	10.50%	R33 099 346.00	R3 145 186.72				
6	10.50%	R36 574 777.33	R3 475 431.33				
7	10.50%	R40 415 128.95	R3 840 351.62				
8	10.50%	R44 658 717.49	R4 243 588.54				
9	10.50%	R49 347 882.82	R4 689 165.34				
10	10.50%	R54 529 410.52	R5 181 527.70				
11	10.50%	R60 254 998.62	R5 725 588.10				
12	10.50%	R66 581 773.48	R6 326 774.86				
13	10.50%	R73 572 859.70	R6 991 086.22				
14	10.50%	R81 298 009.96	R7 725 150.27				
15	10.50%	R89 834 301.01	R8 536 291.05				
16	10.50%	R99 266 902.62	R9 432 601.61				
17	10.50%	R109 689 927.39	R10 423 024.77				
18	10.50%	R121 207 369.77	R11 517 442.38				
19	10.50%	R133 934 143.59	R12 726 773.83				
20	10.50%	R147 997 228.67	R14 063 085.08				
21	10.50%	R163 536 937.68	R15 539 709.01				
22	10.50%	R180 708 316.14	R17 171 378.46				
23	10.50%	R199 682 689.33	R18 974 373.19				
24	10.50%	R220 649 371.71	R20 966 682.38				
25	10.50%	R243 817 555.74	R23 168 184.03				

However, a much more affordable option is determining which amount must be invested annually to yield R243 817 555. For this reason, an investment in a sinking fund would be a more appropriate option.

The amount to be invested annually to get a return of an accumulated R243 .8 million after 25 years, amounting to R3 854 604.

Below in section 6 is the calculated estimated breakdown per participating B-Municipality, which includes all the above items to cover the cost of constructing and operating the proposed Landfill Site.

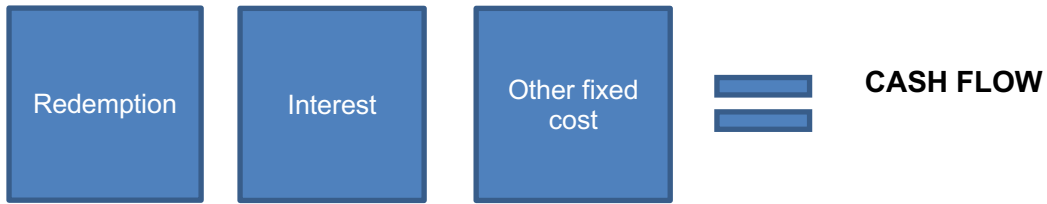
6. STRUCTURE OF THE INTERIM TARIFF

The combined structure, which includes the separable figures, is reflected in the below table.

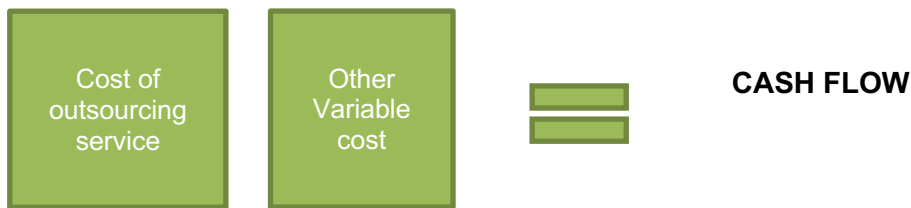
The accounting figures for non-cash transactions are excluded, and the redemption cost and Rehabilitation cost sinking fund contributions are included.

The redemption portion of the loan repayments and the rehabilitation sinking fund included in the cost structure to determine the total cost recovery would result at year-end a cash surplus that would be equal to the redemption portions and the rehabilitation sinking fund. It is illustrated as follows:

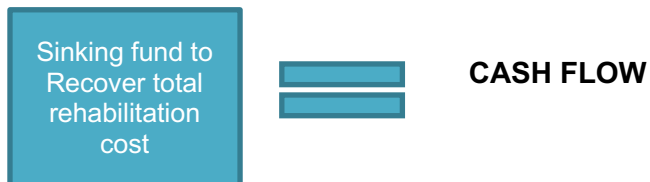
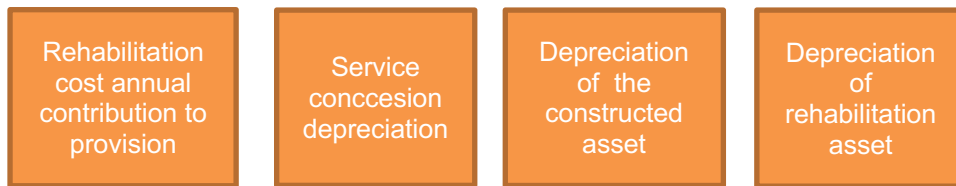
Fixed Cost



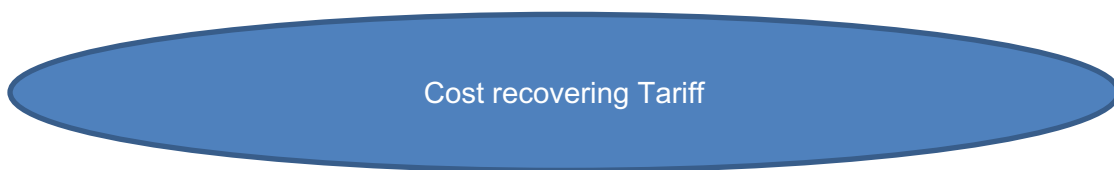
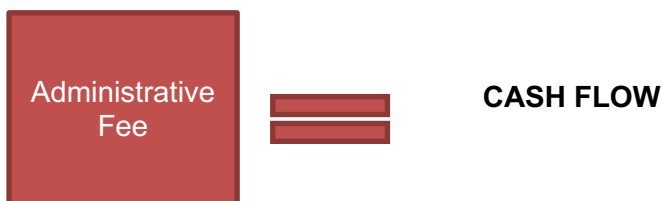
Variable Cost

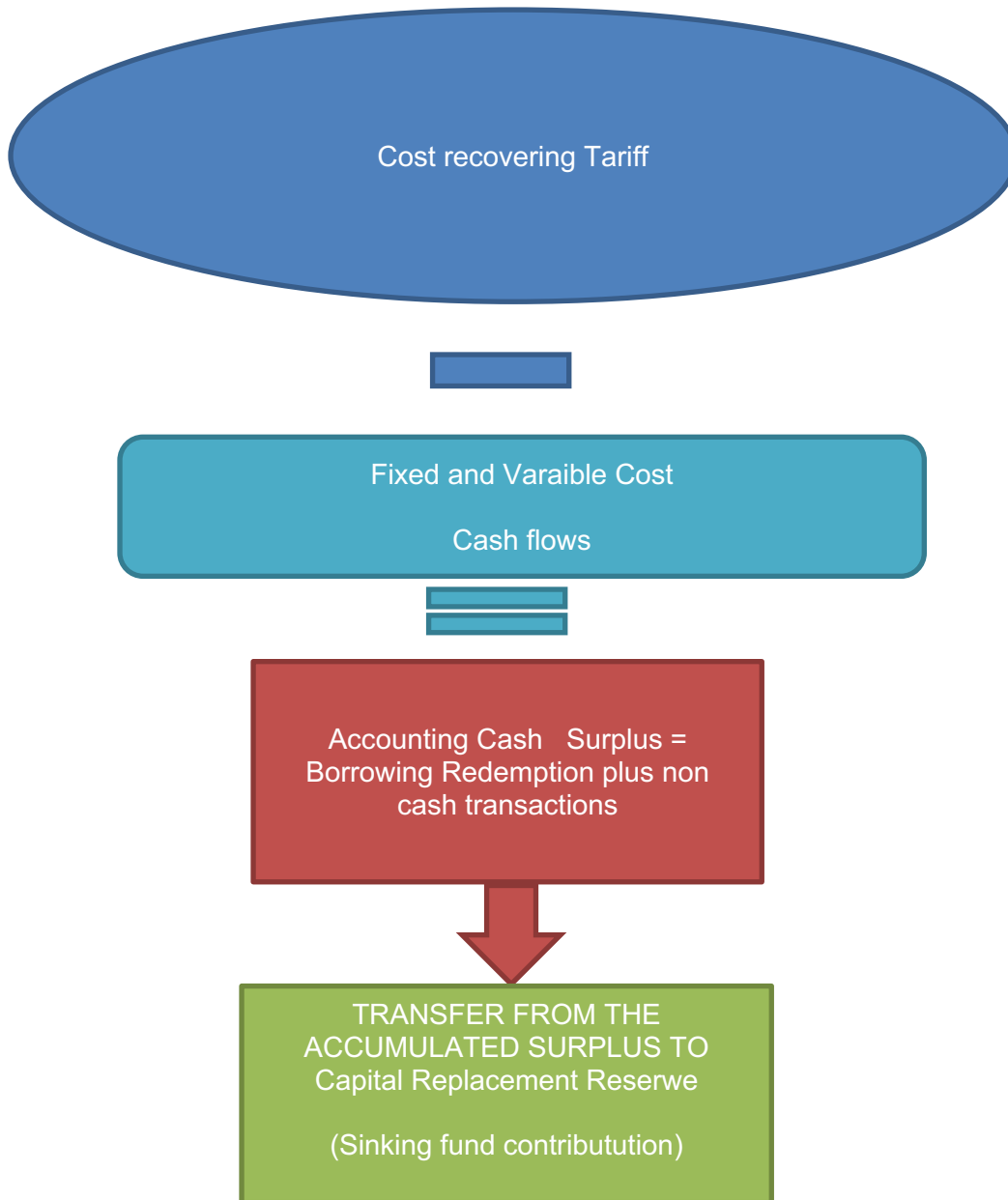


GRAP Transactions (NO CASH FLOWS)



Administration Fee





**The cost recovering summary to be recovered from the B Municipalities is as follows
First calculation excluding chipping and crushing**

Borrowing 10 years at a floating rate in terms of JIBAR						
Present rate = 9.48% (3 months JIBAR plus 2.01 %)						
Description	Total	Mossel Bay	George	Knysna	Bitou	
Monthly tonnage split	7565	2507	3155	1094	809	
Monthly tonnage % split	100%	33%	42%	14%	11%	
FIXED PORTION BASED ON CAPEX of R261 083 596						
Includes all inclusive construction cost plus professional fees (excl VAT)						
General Waste and Hazardous Waste (9.48% borrowing rate)	R41 545 623.26	R13 767 994.38	R17 326 694.17	R6 008 051.80	R4 442 882.91	
Chipping	-	-	-	-	-	
Crushing	-	-	-	-	-	
Sub Total A	R41 545 623.26	R13 767 994.38	R17 326 694.17	R6 008 051.80	R4 442 882.91	
VARIABLE PORTION RELATED TO OPERATIONS						
ESTIMATED COST BASED ON CURRENT OPERATIONAL SITES OF APPROXIMATELY EQUAL SIZE						
General Waste and Hazardous Waste. Annual total cost	R7 485 720.00	R2 480 727.04	R3 121 936.10	R1 082 535.05	R800 521.81	
Chipping	R0.00 -	-	-	-	-	
Crushing	R0.00 -	-	-	-	-	
Sub Total B	R7 485 720.00	R2 480 727.04	R3 121 936.10	R1 082 535.05	R800 521.81	
REHABILITATION COST						
ANNUAL AMOUNT TO BE INVESTED IN A SINKING FUND YIELDING THE FUTURE AMOUNT						
Annual cost	R3 854 604.00	R1 277 394.87	R1 607 571.13	R557 427.20	R412 210.79	
Sub Total C	R3 854 604.00	R1 277 394.87	R1 607 571.13	R557 427.20	R412 210.79	
Sub Total A+B+C	R52 885 947.26	R17 526 116.30	R22 056 201.40	R7 648 014.05	R5 655 615.51	
GRDM 10% Annual Admin Fee	R5 288 594.73	R1 752 611.63	R2 205 620.14	R764 801.41	R565 561.55	
Total excl VAT	R58 174 541.99	R19 278 727.93	R24 261 821.54	R8 412 815.46	R6 221 177.06	
VAT	R8 726 181.30	R2 891 809.19	R3 639 273.23	R1 261 922.32	R933 176.56	
Total Incl VAT	R66 900 723.28	R22 170 537.11	R27 901 094.77	R9 674 737.78	R7 154 353.62	

The second calculation includes chipping and crushing

Borrowing 10 years at a floating rate in terms of JIBAR						
Present rate = 9.48% (3 months JIBAR plus 2.01 %)						
Description	Total	Mossel Bay	George	Knysna	Bitou	
Monthly tonnage split	7565	2507	3155	1094	809	
Monthly tonnage % split	100%	33%	42%	14%	11%	
FIXED PORTION BASED ON CAPEX of R261 083 596						
Includes all inclusive construction cost plus professional fees (excl VAT)						
General Waste and Hazardous Waste (9.48% borrowing rate)	R41 545 623.26	R13 767 994.38	R17 326 694.17	R6 008 051.80	R4 442 882.91	
Chipping	-	-	-	-	-	
Crushing	-	-	-	-	-	
Sub Total A	R41 545 623.26	R13 767 994.38	R17 326 694.17	R6 008 051.80	R4 442 882.91	
VARIABLE PORTION RELATED TO OPERATIONS						
ESTIMATED COST BASED ON CURRENT OPERATIONAL SITES OF APPROXIMATLY EQUAL SIZE						
General Waste and Hazardous Waste. Annual total cost	R7 485 720.00	R2 480 727.04	R3 121 936.10	R1 082 535.05	R800 521.81	
Chipping	R3 573 000.00	R1 184 072.84	R1 490 127.56	R516 703.50	R382 096.10	
Crushing	R1 925 000.00	R637 934.57	R802 825.51	R278 380.70	R205 859.22	
Sub Total B	R12 983 720.00	R4 302 734.44	R5 414 889.17	R1 877 619.26	R1 388 477.13	
REHABILITATION COST						
ANNUAL AMOUNT TO BE INVESTED IN A SINKING FUND YIELDING THE FUTURE AMOUNT						
Annual cost	R3 854 604.00	R1 277 394.87	R1 607 571.13	R557 427.20	R412 210.79	
Sub Total C	R3 854 604.00	R1 277 394.87	R1 607 571.13	R557 427.20	R412 210.79	
Sub Total A+B+C	R58 383 947.26	R19 348 123.70	R24 349 154.48	R8 443 098.26	R6 243 570.83	
GRDM 10% Annual Admin Fee	R5 838 394.73	R1 934 812.37	R2 434 915.45	R844 309.83	R624 357.08	
Total excl VAT	R64 222 341.99	R21 282 936.07	R26 784 069.92	R9 287 408.08	R6 867 927.91	
VAT	R9 633 351.30	R3 192 440.41	R4 017 610.49	R1 393 111.21	R1 030 189.19	
Total Annual Cost (Incl VAT)	R73 855 693.28	R24 475 376.48	R30 801 680.41	R10 680 519.29	R7 898 117.10	

7. CONCLUSION

The annual cost recovering tariff (excluding VAT), (including chipping and crushing)) as per participating municipality for the interim period is as follows:

Mosselbay	R21 282 936.07
George	R26 784 069.92
Knysna	R9 287 408.08
Bitou	R6 867 927.91

The annual cost recovering tariff (excluding VAT), (excluding chipping and crushing)) as per participating municipality for the interim period, is as follows:

Mosselbay	R19 278 727.93
George	R24 261 821.54
Knysna	R8 412 815.46
Bitou	R6 221 177.06