

Trans-Caledon Tunnel Authority (TCTA) briefing on the Corporate Plan & Budget for 2023/24-2025/26

Briefing of the Portfolio Committee for the Department of Water and Sanitation 02 May 2023 Mr. Percy Sechemane Chief Executive Officer





- Introduction
- TCTA Mandate
- Strategic Overview
- Contribution to Government Outcomes
- Government priorities: A massive rollout of infrastructure in the water sector
- TCTA's response to government priorities-in the water sector
- Raising of funding, implementation of projects and debt management
- Analysis of 2023/24 Budget
- Medium Term Budget: 2023/24 & 2024/25
- Conclusion



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Introduction



Purpose of TCTA's Corporate Plan

- To outline how the Trans Caledon Tunnel Authority (TCTA) will fulfil its mandate and implement the directives received from the Minister during the period 2023-2026, and in doing so,
- support the Government's developmental agenda.





Mandate

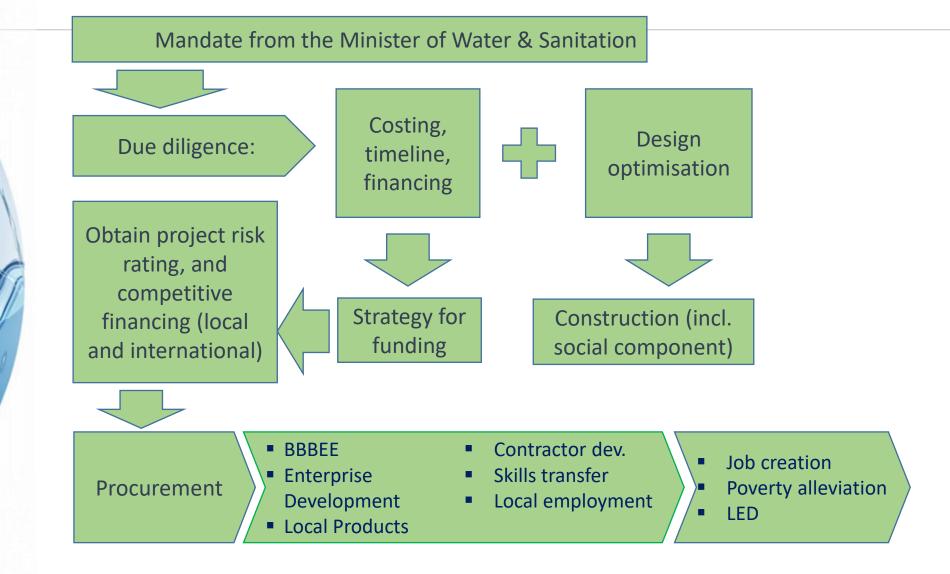


Mandate

- TCTA's mandate is set out in terms of the Notice of Establishment and directives issued from time to time by the Executive Authority.
- TCTA is an implementing agent on behalf of the Department of Water and Sanitation, tasked with the funding and implementation of water infrastructure projects.



Mandate Flow Process





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Strategic overview



TCTA Vision & Mission

Vision

• To be the world-class enabler of sustainable infrastructure for a water-secure South Africa.

Mission

• To plan, finance and implement sustainable and accessible water resource infrastructure.



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Strategic Goals for 2023/24 (1 of 3)

Goal #1: Raise funding for implementation of infrastructure

Goal #2: Implement capital projects on time, within budget, to the appropriate standards and in a sustainable socio/environmental manner

Goal #3: Operate and maintain designated projects to meet DWS requirements/ specifications

Goal #4: Manage debt within the approved borrowing limit

Goal #5:Ensure organisational positioning for the planned Water Agency

Goal #6:Maintain the highest standard of internal control environment





Strategic Goals for 2023/24 (2 of 3)

Goal #7: Ensure that all IT systems are implemented to support the business.

Goal #8: Position TCTA as a thought leader in critical aspects of water security.

Goal #9: Embed a performance culture that manifests as an agile organization.



Contribution to Government Outcomes



Contribution to Government Outcomes (1/2)

	Outcome #	Government outcomes	TCTA contribution
the second	4		Providing cost-effective water infrastructure as an enabler of economic growth & jobs.
	5	Skilled and capable workforce.	Developing a strong skills-set in scarce fields to enable SA compete in world markets, & promoting entrepreneurship in small businesses.
• /	6	Efficient, competitive and responsive economic infrastructure network.	Ensuring a comprehensive financial and implementation package that delivers the most cost-effective solution.
	7	Vibrant, equitable and sustainable rural communities with food security for all.	Supporting other water sector institutions to enable them to deliver on their mandate.

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Contribution to Government Outcomes

	Outcome #	Government outcomes	TCTA contribution
the second	8	Sustainable human settlements and improved quality of household life.	Providing affordable infrastructure & improved access to basic services.
	9	A responsive, accountable, effective and efficient local government system.	Supporting other water sector institutions to enable them to deliver on their mandate.
1 - V	10	Environmental assets and natural resources that are well protected and continually enhanced.	Developing infrastructure in an environmentally responsible & socially inclusive manner, in accordance with global best practice.
	12	An efficient, effective and development-orientated public.	Contributing to the development of critical knowledge in the sector & beyond (e.g. project financing & implementation, desalination, water re-use).

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A massive rollout of infrastructure in the water sector

- In the State of the Nation Address on 09 February 2023, the President announced the following projects:
 - Umzimvubu Water Project will start in the next financial year. The next phase will be the construction of the Lilane Dam, which will include a hydropower station.
 - Major projects to increase the capacity of the Clanwilliam Dam, Hazelmere Dam and the Tzaneen Dam will improve the supply of water to the West Coast, eThekwini and the eastern part of Limpopo.



A massive rollout of infrastructure in the water sector



TCTA's response to government priorities-in the water sector

- Mzimvubu Water Project (MWP) Advisory Services.
- **TCTA Service Offerings.**
- Projects at implementation phase.
 - Key Challenges
- Assets in operations
 - 1) Acid Mine Drainage (AMD) Treatment Plants.
 - o Eastern Basin
 - o Central Basin
 - o Western Basin

2) Delivery Tunnel North (DTN) of the Lesotho Highlands Water Project (LHWP).



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Mzimvubu Water Project (MWP) – TCTA Provides Advisory Role



Purpose

• The project classified as Strategic Integrated Project under SIP-3 which is intended to enable the supply of potable water, irrigation, hydropower, and tourism in the region.

Note: DWS is the Implementing Agent and TCTA is providing programme management Advisory Role (project support, social management and land acquisition services) to DWS

Project Infrastructure Scope

- Two multi-purpose dams Ntabelanga and Lalini dams, and associated infrastructure on the Tsitsa River.
- Project is being implemented in stages:
 - Stage -1: Advanced Infrastructure mainly access road and other advance infrastructure.
 - Stage -1 Budget: R105 million.
 - Stage -2: Implementation of Ntabelanga Dam and Water Treatment Works.
 - Stage -3: Implementation of the bulk distribution system.
 - Stage 4: Implementation of the Irrigation and Hydropower components roads, staff housing.

Project Key Activities

• Completion of the 17 km access road.

TCTA Service Offerings - Potential Projects

Project	Directive	Strategic Impact	Status
Nwamitwa Dam	Possible directive to TCTA to implement the project.	Increase in water supply for commercial and social use in the Tzaneen area.	Proposal made to DWS awaiting response. DWS is still in the process of sourcing funding for the project.
Clainwilliam Dam	Possible directive to TCTA to provide PMO support services.	Raising of the Clainwilliam Dam	FBI Funding secured and TCTA role to be defined and aligned.



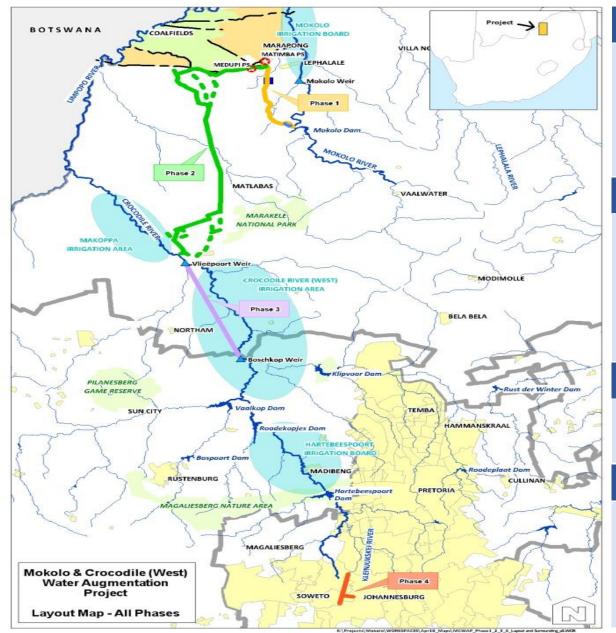


Projects at implementation phase

- Berg River Voëlvlei Augmentation Scheme (BRVAS)
- Mokolo and Crocodile River Water Augmentation Project - Phase 2A (MCWAP-2A)
- uMkhomazi Water Project Phase 1 (uMWP-1)



Mokolo Crocodile Water Augmentation Project – Phase 2



Purpose

- To enable Eskom to have a second source of water supply for the Medupi and Matimba power stations including the flue gas desulphurisation (FGD) units.
- To enable further development of the Waterberg Coalfields, as envisaged in the first Strategic Infrastructure Project, SIP- 01.

Project Infrastructure Scope

- Abstraction Weir 125 m³/a at Crocodile River
- Water Transfer Infrastructure to Lephalale:
 - **160 km pipeline** of varying diameter to deliver **75 m³/a**
 - Pump Stations and associated Infrastructure
 - Operational Control Center to integrate Phase 1 & 2A
 - River Management System (200 km)

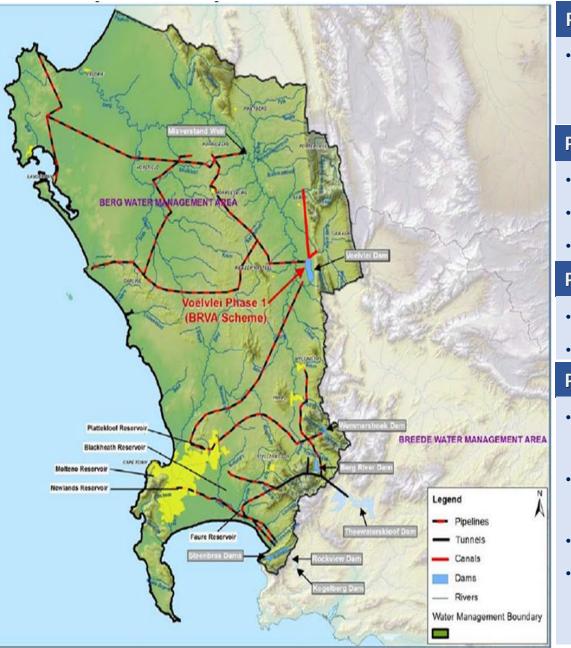
Project Charter Commitments

- Total project cost estimate or LTCP: R 12,3 Bn
- Water Delivery Date: October 2028

Planned Project Key Activities for FY 2023/24

- Commence with the procurement process for the Contractor and award contract by March 2024
- Acquire 100% of land and servitudes to enable construction.
- Commence with relocation of the affected party.

BRVAS Project



Purpose

 BRVAS Project is to deliver the total annual volumes of 23 million m³ per annum to the Western Cape Water Supply System by March 2027.

Note: The scheme will only be operational during winter months.

Project Infrastructure Scope

- Weir at the Berg River
- **Pump station** to deliver approximately **4 m³/s** and auxiliary infrastructure.
- 6, 3 km long 1.5 m diameter steel pipe with an outlet into Voelvlei Dam.

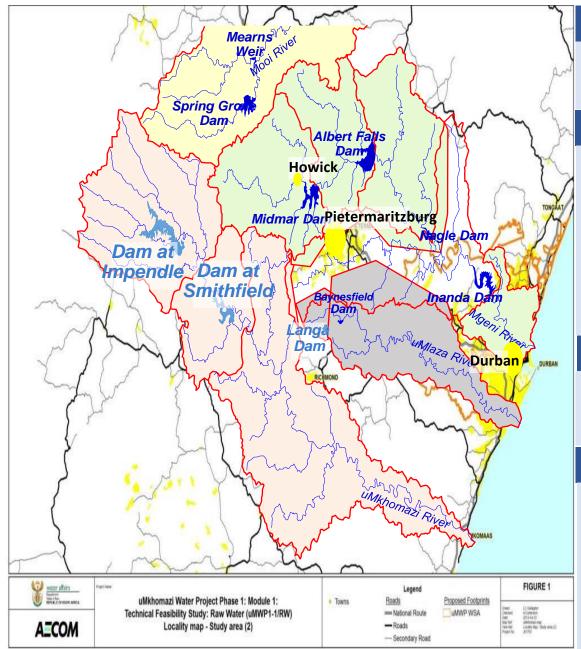
Project Charter Commitments

- Total project cost estimate or LTCP: R 1,1 Bn
- Water Delivery Date: May 2027

Planned Project Key Activities for FY 2023/24

- Conclude institutional arrangements, obtain borrowing authority to raise long-term funding.
- Finalize the PSP Tender Document for detail design and tender specification and obtain approval by the Bid Specification Committee by June 2023.
- Issue the Tender Document to the market and conclude the contract by March 2024.
- Update the Land Acquisition Plan by August 2023 and commence with the consultative process with affected parties.

uMkhomazi Water Project - Phase 1



Purpose

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To increase the Mgeni System yield from **394 to 608** million m3/a.

Note: The Mgeni System is already experiencing a deficit.

Project Infrastructure Scope

- **81m high dam at Smithfield** on the uMkhomazi River (gross storage capacity of 251 million m³).
- **33km long**, and 3.5m diameter, **raw water tunnel** from the dam at Smithfield up to the uMlaza River Valley.
- **5.1km long, and 2.6m diameter water pipeline** that will connect the raw water tunnel to the Baynesfield Water Treatment Works (WTW)

Project Charter Commitments

- Total project cost estimate or LTCP: R 23,4 Bn
- Water Delivery Date: July 2031

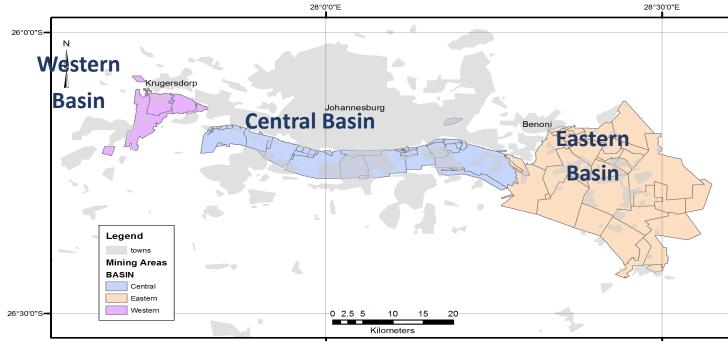
Planned Project Key Activities for FY 2023/24

- Prepare the 1st PSP tender document for the tunnel and the pipeline and obtain approval from Bid Specification Committee.
- Issue the tender document to the market and conclude the procurement process by December 2023.

Key Challenges

- TCTA inability to execute the Funding and Procurement processes in parallel due to National Treasury issued instruction No. 3 of 2021/2022: Enhancing Compliance, transparency, and Accountability in SCM ("the Instruction Note"), Section 8.4 sub-paragraph (a) and (b). This has the following implications on projects:
 - It will take longer to complete the project preparation phase and increase the project development cost until the funding process is concluded.
 - Increase the overall project durations.
 - Increase cost of funding due to higher commitment fees on secured funding facilities well in advance of the need to drawdown of funds,
 - Uncertainty on the amount of funding that must be raised since more reliable estimates are only available at tender evaluation and contract award rather than at bid advertisement. There is therefore a risk that funding may be inadequate at contract award, when it will be too late to do anything about it and could lead to considerable delays in the project while additional funding is sought.

Acid Mine Drainage – Short Term Solution (AMD-STI)





Purpose

• Short term action plan was to prevent decant in the Western and protect the Environmental Critical Level (ECL) in the Central and Eastern Basins.

AMD Plant Design Capacities

- Central Basin
 - AMD Plant Treatment Capacity is **84MI/d.**
 - Daily Average Target is 60MI/d
 - Environmental Critical Level: 126m
- Eastern Basin
 - AMD Plant Treatment capacity is **110Ml/d**.
 - Daily Average Target is 100Ml/d
 - Environmental Critical Level: 106m
- Western Basin
 - AMD Plant Treatment capacity is 35ML/d
 - Daily Average Target is **30MI/d**

Treated Water Quality Specification

Water Quality	Units	Specifications (as per DWS directive)
рН		6.5 – 9.5
Iron	mg/l	< 1
Manganese	mg/l	< 10
Aluminium	mg/l	< 1
Sulphates	mg/l	≤3000
Electrical Conductivity	mS/m	≤450

OPERATIONS STRATEGIC RISKS

Risk

No.	Strategic Objective	Risk	Inherent Risk Rating		Key Controls	KPI's	Response date
1	Safely operate and maintain AMD Plants to meet DWS water delivery volumes targets and agreed	n Non achievement of water delivery volumes targets and specifications		1.	Restore EC AMD Plant to achieve the design capacity.	KPI'sDaily Plant volumes & specifications	April 2023
	specifications	Consequences Reputational damage Regulatory non-compliances leading to monetary penalties 			 Restore CB AMD Plant to achieve the design capacity: Discharge pipe capacity upgrade Pump upgrade 	KPI'sDaily Plant Volumes & specifications	June 203
		or legal action against TCTA and DWS.		3.	Update the Operations and Maintenance strategies and plans.	KPI'sDaily Plant Volumes & specifications	March 2024
				4.	Establish partnerships agreement with the operators and key suppliers of equipment.	KPI'sCommercial Agreements	March 2024
No.	Strategic Objective	Risk	Inherent Risk Rating		Key Controls	KPI's	Response date
2	Maintain the water levels below the Environmental Control Levels (ECLs).	below the Environmental Environmental Critical		•	Operate and maintain the AMD Plants within the set targets. Continue with the plan to neutralise the	 KPI's Water levels in the basins Water pH levels 	Daily monitoring Daily
		Consequences	20		acid with Caustic Soda at the collection point.		monitoring
		 Decanting Reputational damage 		•	Continue to interface with key stakeholders.	 Levels of engagements 	Daily monitoring

Note: An increase of water ingress into the basins WB & CB has resulted in the failure to maintain water levels below the ECLs. The design capacities of these

plants are inadequate to mitigate the risk of decanting especially during the raining season.

Lesotho Highlands Water Project (LHWP-DTN)





Purpose

- LHWP augments the Vaal River System and generates hydroelectricity for Lesotho.
- Transfer or delivery volumes 780 million m³ per annum and generates 72 megawatts of hydropower through the Muela Power Station.

LWHCP Treaty Protocol VI

- To operate and maintain Delivery Tunnel North transfer scheme in a cost effective and environmentally sustainable manner.
- Critical maintenance activity:
 - Conduct the tunnel outages (5 years intervals) 2024
 - Appointment of the PSP
 - Appointment of the Contractor

• Operator: TCTA in-house



Raising of funding, debt management and implementation of projects



Risks for TCTA as a public entity due to challenges

- **Raise funding**: Reduced funders' appetite for lending to SOEs and generally tight lending conditions.
- **Project implementation**: Challenges in agreeing funding models with project beneficiaries and obtaining their commitment to sign offtake agreements contribute to delays in raising funding.
- **Debt management**: Municipalities' ability to pay water tariffs, ensuring that tariffs are affordable but also sustainable to assure viability of water sector institutions, tighter conditions of regulatory approval for borrowings reduce flexibility to deal with unforeseen liquidity challenges.





Analysis of 2023/24 Budget



Budget Principles

- Zero-based budgeting while considering the current status of operational areas.
- Where the probability of commencing a project is dependent on factors such as funding, DWS approvals and other factors outside TCTA control, the organisation has erred on the side of caution and budgeted conservatively.
- Administrative costs directly attributable to a specific project are allocated to that project.
- NT cost containment measures considered.
- Indirect overheads are shared amongst all the projects retrospective adjustments are made where new mandates come onstream during a year
- Management has adopted a cautious approach when budgeting for administrative related costs with the objective to manage and where possible reduce or maintain costs while ensuring that strategic imperatives are achieved.



Project Recoveries

Projects	2022-23	2023-24	2023-24
LHWP	34%	30%	163 693 503
BWP	2%	2%	10 912 900
VRESAP	3%	5%	27 282 251
ORWRDP	4%	0%	-
MMTS2	4%	0%	-
KWSAP	2%	2%	10 912 900
MCWAP1	3%	3%	16 369 350
AMD	10%	10%	54 564 501
LHWP2	15%	15%	81 846 752
MRWP	2%	2%	10 912 900
MCWAP2	12%	15%	81 846 752
UMWP	5%	10%	54 564 501
BRVAS	4%	6%	32 738 701
TOTAL	100%	100%	545 645 011



Budget Assumptions

- Capex is based on mandated projects where funding is secured
- Supplementary budgets will be submitted for approval once funding is secured
- Office lease cost based on current lease contract
- Unless contracted otherwise 4,45% escalation applied
- Staff cost escalations on average 4,725%
- Vacancies and new positions budgeted for on projected placement dates no contingent positions budgeted for



Medium Term Expenditure Forecast

• Tariff billing based on income agreements and budgeted water volumes.

• Expenses are based on contract values and for routine expenses, a 4,5% increase was added.

 Capex based on TCTA Capital Expenditure Plans and LHDA Long-Term Cost Plan.





Budget Analysis



Operating Income and Expenditure MTEF

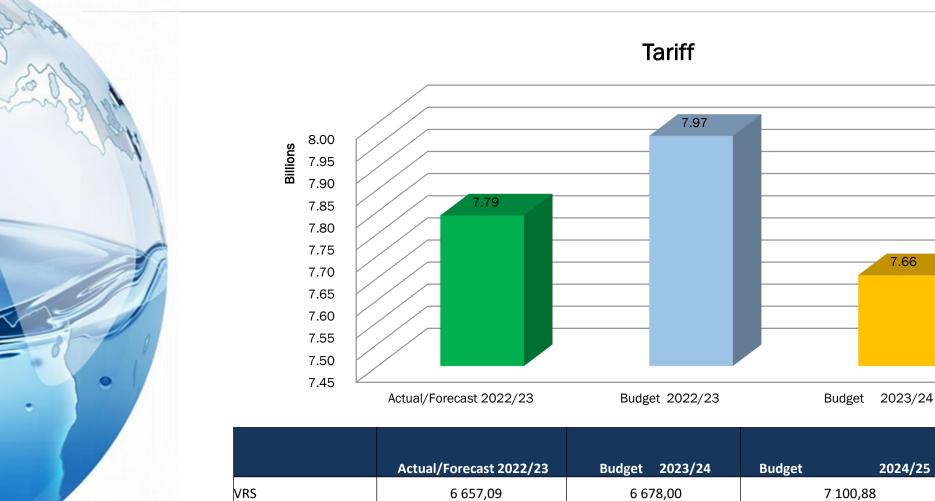
	Actual/Forecast 2022/23	Budget 2022/23	Actual/Forecast vs Budget	Budget 2023/24	Actual/Forecast 22/23 vs Budget 23/24	% Variance	Budget 2024/25	Budget 2025/26
Tariff Revenue	(7 791,09)	(7 970,90)	(179,81)	(7 655,82)	(135,26)	2%	(7 991,54)	(7 935,76)
	-	-	-	-	-		-	-
Operating Costs	734,51	1 044,36	309,85	1 049,76	(315,25)	-43%	1 164,86	1 110,47
TCTA Admin Costs	435,27	582,87	147,60	545,65	(110,38)	-25%	568,67	593,81
Operations and Maintenance	299,25	461,49	162,25	504,11	(204,87)	-68%	596,19	516,66
	-	-	-	-	-		-	-
Operating Inflows/Outflows	(7 056,58)	(6 926,54)	130,04	(6 606,07)	(450,51)	6%	(6 826,68)	(6 825,29)
	-	-	-	-	-		-	-
Total Finance Charges	885,41	1 415,55	530,13	786,09	99,32	11%	1 300,04	1 891,04
	-	-	-	-	-		-	-
Net Working Capital Cash (in)/outflows	(6 171,16)	(5 510,99)	660,17	(5 819,97)	(351,19)	0,00	(5 526,64)	(4 934,25)
	-	-	-	-	-		-	-
Capital Repayments	1 870,82	1 584,93	(285,89)	1 222,34	648,47	35%	1 711,48	1 907,73
	-	-	-	-	-		-	-
Fixed Assets	33,04	59,92	26,88	2,35	30,69	93%	2,45	2,56
	-	-	-	-	-		-	-
Capital Expenditure	150,09	1 211,16	1 061,08	310,15	(160,06)	-107%	3 491,37	6 866,26
TCTA Projects	150,09	1 211,16	1 061,08	310,15	(160,06)	-107%	3 491,37	6 866,26
	-	-	-	-	-		-	-
Self Insurance Fund	-	5,00	5,00	5,00	(5,00)		-	-
	-	-	-	-	-		-	-
Lesotho Related Financial Obligations			-					
Lesotho Operating Costs	1 469,63	1 388,16	(81,47)	1 605,98	(136,35)	-9%	1 678,63	1 754,58
LHWP2 Construction	2 065,52	4 100,00	2 034,48	4 800,00	(2 734,48)	-132%	3 500,00	2 500,00
			-					
Total Funding Requirement before Accruals	(2 647,59)	2 833,18	5 480,77	2 120,85	(4 768,44)	180%	4 857,30	8 096,88
Non coch flow itoms and security	(274 4 2)	(04.00)	-	676.20		2400/	264.75	
Non cash flow items and accruals	(271,13)	(94,09)	177,04	676,28	(947,41)	349%	264,75	(107,64)
	-	-	-	-	-	196%	- F 133 AF	-
TOTAL FUNDING REQUIREMENT	(2 918,72)	2 739,09	5 657,81	2 797,13	(5 715,84)	196%	5 122,05	7 989,25



Tariff Revenue

Other Projects

Total



1 134,00

7 791,09

977,82

7 655,82



Budget

2025/26

7 138,78

890,66

7 991,54

796,99

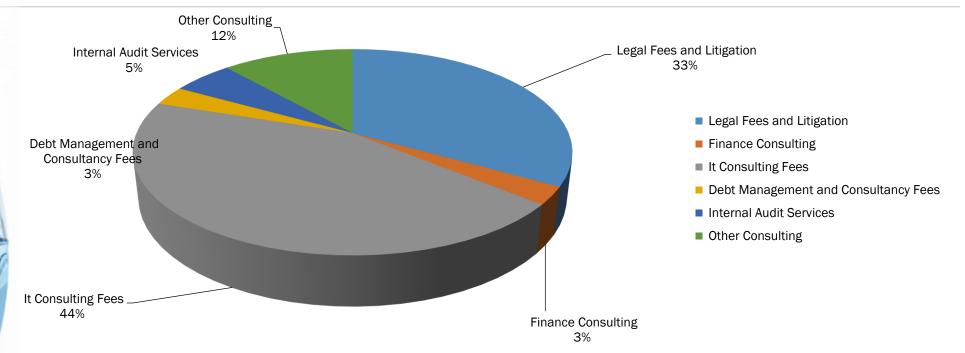
7 935,76

Operations and Maintenance

		Actual/Forecast		Actual/Forecast		(Increase)/	Budget	Budget
		2022/23	Budget 2022/23	vs Budget	Budget 2023/24	Decrease	2024/25	2025/26
1	TCTA Admin Costs	435,27	582,87	147,60	545,65	(110,38)	568,67	593,81
	Operations & Maintenance	299,25	461,49	162,25	504,11	(204,87)	596,19	516,66



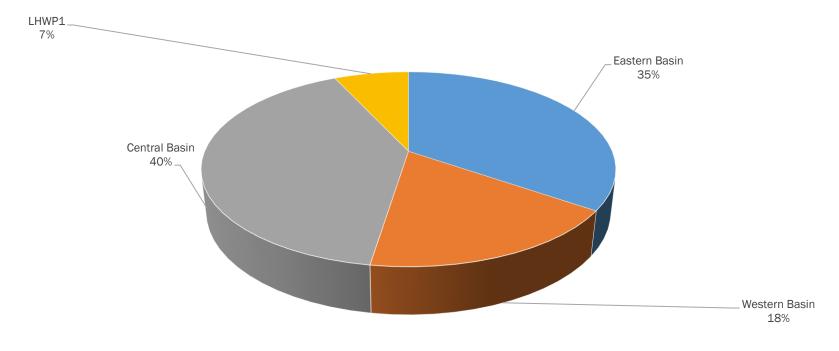
Consultancy Services



Consulting Fees	Actual/Forecast 2022/23	Budget 2022/23	(Increase)/ Decrease	Budget 2023/24	Budget 2024/25	Budget 2025/26
Legal Fees and Litigation	18,95	26,60	7,65	29,10	31,44	32,84
Finance Consulting	0,90	2,00	1,10	2,50	2,61	2,73
It Consulting Fees	17,41	30,37	12,96	40,04	41,83	43,69
Debt Management and Consultancy Fees	1,41	6,62	5,21	2,75	2,87	3,00
Internal Audit Services	4,90	4,90	0,00	4,84	5,05	5,28
Other Consulting	4,50	14,20	9,70	10,50	10,97	11,46
Total	48,07	84,69	36,62	89,73	94,77	98,99



O&M Costs



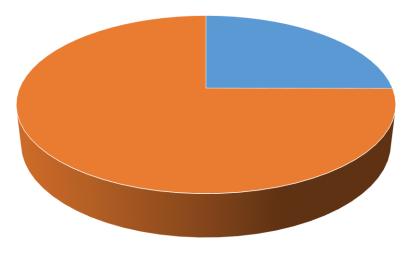
Eastern Basin Western Basin Central Basin LHWP1

	Actual/Forecast 2022/23	Budget 2022/23	(Increase)/ Decrease	Budget 2023/24	(Increase)/ Decrease	% (Increase)/ Decrease
Eastern Basin	92,79	173,79	81,00	174,43	(81,64)	-88%
Western Basin	73,86	99,22	25,36	90,06	(16,20)	-22%
Central Basin	132,55	176,31	43,76	204,64	(72,08)	-54%
LHWP1	0,05	12,17	12,12	34,99	(34,94)	-70703%
Total	299,25	461,49	162,25	504,11	(204,87)	-68%



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Lesotho Operating Costs



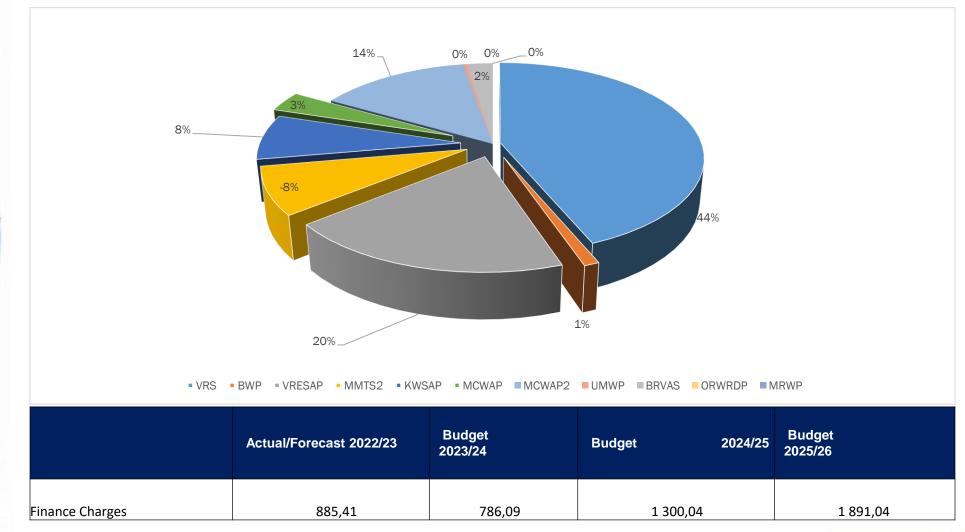
Lesotho Operating Costs
 LHWP2 Construction

	Actual/Forecast 2022/23	Budget 2022/23	Actual/Forecast vs Budget	Budget 2023/24	Actual/Forecast 22/23 vs Budget 23/24	Budget 2024/25	Budget 2025/26
Lesotho Operating Costs	1 469,63	1 388,16	(81,47)	1 605,98	(136,35)	1 678,63	1 754,58
LHWP2 Construction	2 065,52	4 100,00	2 034,48	4 800,00	(2734,48)	3 500,00	2 500,00
Total	3 535,15	5 488,16	1 953,01	6 405,98	(2 870,83)	5 178,63	4 254,58



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Finance Charges





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Capital Repayments

	Actual/Forecast 2022/23	Budget 2023/24	Budget 2024/25	Budget 2025/26
Capital Market	1,14	-	-	-
Loans	1 869,67	1 222,34	1 711,48	1 907,73
Total	1 870,82	1 222,34	1 711,48	1 907,73



Capital Expenditure

	Actual/Forecast 2022/23	Budget 2022/23	Actual/Forecast vs Budget	Budget 2023/24	Actual/Forecast 22/23 vs Budget 23/24
BWP	-	5,02	(5,02)	1,10	(1,10)
MMTS2	1,50	15,38	(13,88)	44,36	(42,86)
ORWRDP	20,66		20,66	0,65	20,01
MCWAP2	78,79	1 090,72	(1011,93)	147,95	(69,16)
AMD	47,78	26,50	21,28	46,00	1,78
UMWP		16,93	(16,93)	28,21	(28,21)
BRVS	1,36	56,61	(55,24)	41,72	(40,36)
TOTAL	150,09	1 211,16	(1 061,08)	310,00	(159,91)



Conclusion

TCTA has ensured alignment of the Corporate Plan with government prescripts, priorities and outcomes.



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Thank you

Mr. Percy Sechemane Chief Executive Officer

