



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Enquiries: J Maluleke
Telephone: 082 885 9697
Reference: 6/2/2/6

NATIONAL ASSEMBLY

FOR WRITTEN REPLY

QUESTION NO 1963

DATE OF PUBLICATION IN INTERNAL QUESTION PAPER: 26 MAY 2023
(INTERNAL QUESTION PAPER NO. 19)

1963. Mr B N Herron (Good) to ask the Minister of Water and Sanitation:

- (1) Whether, considering that in 2022 the residents lodged complaints to his department following the contamination of the Rooiwal Waste Water Treatment Works, and noting the investigations conducted by the SA Human Rights Commission that also found that the water posed serious health risks and that the residents' constitutional right to have access to clean water was not met by the City of Tshwane Metropolitan Municipality, his department has been informed of the specified issues; if not, does his department not have an oversight team looking into complaints received from residents and/or organisations; if so, what remedial actions have been taken to remedy the specified situation;
- (2) What total number of times since its establishment has the specified Rooiwal plant undergone major upgrades to increase its capacity to handle the pressures of demand from the area it services;
- (3) What type of maintenance has taken place at the Rooiwal plant in the past year?

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MINISTER OF WATER AND SANITATION

1. The Department has issued Notices and Directives to the City of Tshwane (CoT) Metropolitan Municipality and the Department is currently engaging CoT to reach an agreement that will be approved by the Courts. This is yet to be finalised.
2. The Rooiwal Wastewater Treatment Works (WWTW) consists of three (3) works: Rooiwal North, Rooiwal West, and Rooiwal East. The biofilter effluent of Rooiwal West must be further treated by the activated sludge system of the Rooiwal North Works. Rooiwal East is biofilters with a separate effluent stream.


A project to upgrade the WWTW was started in 2008 and completed in 2012, with the following deliverables:

- Replacement of centrifugal blowers on the Rooiwal Northern Works.
 - The replacement of return activated sludge (RAS) pumps at Rooiwal Northern Works.
 - The structural refurbishment of 3 anaerobic digesters at Rooiwal Western Works.
 - New mechanical and electrical equipment for anaerobic digesters at Rooiwal Western Works and EW.
 - Extension of the sludge drying pans.
 - SCADA for blowers and RAS pumps
3. Maintenance is being performed on all the infrastructure. Details of the dates and status of planned maintenance are enclosed in **Annexure 1 attached**.

Despite the above, Rooiwal WWTW is dysfunctional and under-capacitated. In June 2023, the Tshwane City Council voted R450 million for short-term repairs to the Rooiwal Waste Water Treatment Works and DWS, National Treasury, the DBSA and the City are in the process of developing a financing plan for the medium upgrading of the capacity of the Rooiwal Waste Water Treatment Works. This will involve the upgrading of the plant's treatment capacity by 130 ML of waste water per day (ML/day), coupled with desilting of sludge at the Leeukraal dam. The desilting of the dam will enable the Temba Water Treatment Works to function better and produce drinking water which meets minimum standards. The current capacity of the plant is 250 ML/day. The capacity will be increased to 380 ML/day. This will be sufficient to treat the current and future projected waste water load in Hammanskraal. The project is due to start in July 2024 and end in June 2026.

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DRAFT REPLY: RECOMMENDED/ ~~NOT RECOMMENDED/ AMENDED~~


DR SEAN PHILLIPS
DIRECTOR-GENERAL
DATE: 5/7/23



MR SENZO MCHUNU, MP
MINISTER OF WATER AND SANITATION

DATE: 14/2/23



water & sanitation

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Water and Sanitation
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ANNEXURE 1

Rooiwal East and West Wastewater Treatment Works

Ref No.	AREA	Required Maintenance	Planned Start Date	Planned End Date	Estimated Costs	Status	Actual Costs (R)
Rooiwal East WWTP							
Inlet Works							
1.1	Screens	Service screen No. 1 and 2	10-Jan-23	28-Feb-23		Completed	804471.80
1.1.1	Screens	Repair screen no.1	Emergency	repairs		Completed	61238.94
1.1.2	Screens	Repair screen no.2	Emergency	repairs		Completed	62555.90
4	Grit Classifier	Repair Grit Classifier No. 2	01-Aug-22	30-Sept-22	366 000	Complete	295000.00
5.1	Degritter	Service Grit pump No.1 and 2	01-Sept-22	30-Sept-22	50 000	Complete	171892.88
6.1	Degritter	Service Grit scrapper No. 1 and 2	01-Nov-22	30-Nov-22	110 000	Complete	59190.51
6.1.1	Degritter	Remove sand from Degritter no.1 and 2	Emergency	repairs		Completed	65000.00
7	Degritter	Replace Grit scrapper rubbers	01-Nov-22	30-Nov-22		Complete	25000.00
Primary Settling Tanks							

Ref No.	AREA	Required Maintenance	Planned Start Date	Planned End Date	Estimated Costs	Status	Actual Costs (R)
10.1	PST	Remove sand from PST no.1 to 8	Emergency	repairs		Completed	1120838.39
11	Raw sludge sump	Service Fine screens No. 2	01-Sept-22	30-Jan-23		Completed	475737.93
12	Raw sludge sump	Service Fine screens No. 1	01-Mar-23	30-Mar-23		Screen removed for repair	475737.93
13.1	Raw sludge pump station	Repair Raw sludge pump no.2	Emergency	repairs		Completed	15930.40
		Rooiwal West WWTW					
		Humus Pump Station					
1.1.2	HPS	Repair Humus pump and motor	Emergency	repairs		Completed	134907.84
		Anaerobic Digesters					
4	Anaerobic digesters	Service digested sludge pumps non-return valves	30-Oct-22	30-Oct-22		Complete	297402.82

Rooiwal North Wastewater Treatment Works

No.	AREA	Required Maintenance	Planned Start Date	Planned End Date	Estimated Costs	Status	Actual Costs
		Inlet Works					
1.1	Inlet Works	Service screen No. 1	01-Jul-22	30-Jul-22		Completed	367227.89
1.2	Inlet Works	Service screen No. 2	01-Aug-22	30-Aug-22		Completed	367227.89
1.2a	Inlet Works	Repairs on Screen 2 and 3	Emergency	repairs		Completed	158017.82
3.1	Inlet Works	Service Conveyor belts	01-Oct-22	30-Oct-22		Complete	167816.92
4.1	Inlet Works	Repair Grit Classifier no.2 motor and gearbox	Emergency	repairs		Complete	160882.92
4.2	Inlet Works	Repair grit pump no.2	Emergency	repairs		Complete	49909.97
		Inlet Works					
4.3	Inlet Works	Repair grit pumps x 4	Emergency	repairs		Complete	166336.56
		Primary Settling Tanks					

No.	AREA	Required Maintenance	Planned Start Date	Planned End Date	Estimated Costs	Status	Actual Costs
5.1	PST	Remove sand PST 1	01-Sept-22	30-Sept-22		Complete	252359.20
5.2	PST	Remove sand PST 2	10-Jan-23	30-Jan-23		Complete	252359.20
5.3	PST	Remove sand PST 3	01-Apr-23	30-April-23		Complete	252359.20
7	PST	Refurbish PST Panel boxes	01-Oct-22	30-Oct-22		Service provider busy	121537.48
9.1	PST	Service PST 1 Rotating Bridge	01-Jul-22	30-Jul-22		Complete	28752.24
9.2	PST	Service PST 2 Rotating Bridge	01-Aug-22	30-Aug-22		Complete	15868.68
9.3	PST	Service PST 3 Rotating Bridge	01-Sept-22	30-Sept-22		Complete	31115.96
BNR Reactors							
15.1	Reactor 1	Repair leaks on gas pipes, main gas pipe actuator and gearbox	Emergency	repairs		Leaks closed, service provider still busy	548701.80
18	Reactor 3	Repair Internal Recirculation Pump x 1	01-Aug-22	30-Aug-22		Complete	29037.47
20.2a	Reactor 2	Repair Screw pump no.2 gearbox	Emergency	repair		Service provider busy with repairs	342833.84
Blowers							
24.1	Blowers 3	Quarterly maintenance	01-Sept-22	30-Sept-22		Service provider awaiting spares	442750.00
24.1a	Blowers	Repairs on Blowers main supply	Emergency	Repairs		Complete	407662.00
24.1b	Blowers	Repairs on Blower 2 and 5	Emergency	Repairs		Complete	115943.36
24.1c	Blowers	Repairs on Blower 5	Emergency	Repairs		Complete	68642.30
24.1d	Blowers	Repairs on electric panels of Blower 2,3,4,5 and 8	Emergency	Repairs		Complete	147193.46
24.4	Blowers 8	Quarterly maintenance	01-Dec-22	30-Dec-22		Busy with repairs	442750.00
24.6	Blowers 4	Quarterly maintenance	01-Feb-23	28-Feb-23		Service provider awaiting spares	442750.00
24.7	Blowers 5	Quarterly maintenance	01-Mar-23	30-Mar-23		Service provider	442750.00

No.	AREA	Required Maintenance	Planned Start Date	Planned End Date	Estimated Costs	Status	Actual Costs
						awaiting spares	
24.9	Blowers 2	Quarterly maintenance	01-May-23	30-May-23		Service provider awaiting spares	442750.00
26	Blowers 1-9	Level 3 Electric Motor Preventative Maintenance	01-Aug-22	30-Aug-22	1 900 000	Included in quarterly maintenance quotations	
		Clarifiers					
29.1	Reactor 2 Clarifiers	Service Clarifier Rotating bridges	01-Sept-22	30-Sept-22		Complete	132000.00
29.1a	Reactor 2 Clarifiers	Repair Clarifier 2.6 Rotating bridge	Emergency	Repairs		Complete	19702.26
29.2a	Reactor 1 Clarifiers	Repair Clarifier 1.4 Rotating bridge	Emergency	Repairs		Complete	19593.62
29.2b	Reactor 1 Clarifiers	Repair Clarifier 1.5 Rotating bridge	Emergency	Repairs		Complete	21540.98
29.3	Reactor 3 Clarifiers	Service Clarifier Rotating bridges	01-Nov-22	30-Nov-22		Complete	148048.78
29.3a	Reactor 3 Clarifiers	Repair Clarifier 3.3 and 3.5 Rotating bridges	Emergency	Repairs		Complete	22502.26
29.3b	Reactor 3 Clarifiers	Repair Clarifier 3.6 Rotating bridge	Emergency	Repairs		Complete	23048.95
29.3c	Reactor 3 Clarifier	Repair Clarifier 3.4 Rotating bridge	Emergency	Repairs		Complete	66000.00
30.1	Reactor 1 Clarifiers	Service tip valves	01-Dec-22	30-Dec-22	35 000	Serviced 1.1; 1.2 and 1.3	97365.28
31.1	Reactor 1 Clarifiers	Service bottom valves	01-Jul-22	30-Jul-22		Serviced 1.5 bottom valve	13435.24
31.2	Reactor 2 Clarifiers	Service bottom valves	01-Aug-22	30-Aug-22		Serviced 2.6 bottom valve	15645.80
		Dissolved Air Floatation Pump Station					
32.1a	DAF Screen	Electrical repair on Rake screen	Emergency	Repairs		Complete	55307.38
33	DAF sump pumps	Service DAF Bypass pumps x 2	01-Sept-22	30-Sept-22		Serviced pump no.2	57633.29
33.1	DAF sump pumps	Repair DAF Bypass pumps no.1	Emergency	Repairs		Complete	116107.90
		Aerobic Digester					

No.	AREA	Required Maintenance	Planned Start Date	Planned End Date	Estimated Costs	Status	Actual Costs
34.1	Aerobic pump station	Repair Sludge Pumps non-return valves x 2	Emergency	Repairs		Complete	138856.88
34.2	West Anaerobic Digesters	Repair Digested sludge pump	Emergency	Repairs		Complete	157607.86
34.3	West Humus Pump Station	Repair Humus sludge pumps	Emergency	Repairs		Complete	134907.84
34.4	West Farmers Pump Station	Repair Farmers pump motor	Emergency	Repairs		Complete	319711.90
35	Aerobic digester	Service Fine Screens x 2	01-Oct-22	30-Oct-22		Quotation for approval	726211.80
Chlorination System							
37	Chlorine building	Replace Chlorine pump no1 rotating unit	01-Jul-22	30-Jul-22		Complete	253416.00
Transformers							
42.1	Transformers	Service of transformers	01-Sept-22	30-Sept-22		Complete	493141.80
Flow Meters							
44.1	All Works	Calibrate flow meters	01-Sept-22	30-Sept-22		Complete	46946.40
Other Equipment							
48	Bin trailers	Repair bin trailers x 3	01-Sept-22	30-Sept-22		1 x trailer repaired	3205.00
51	Grass Slasher	Repair grass slasher x 2	01-Oct-22	30-Oct-22	16 000	Complete	
52	Computers	Repair computers x 3	01-Jul-22	30-Jul-22	47 000	Call logged with IT	

Rooiwal Belt Filter Press Maintenance

No.	Area	Required Maintenance	Planned Start Date	Planned End Date	Estimated Costs	Status	Actual Costs
Bottom Belt Presses							
53	Press no. 5	Refurbish Belt press	01-Sept-22	30-Jan-23		Spares used to repair others 4 Belt Presses	860718.65
54	All Presses	Service	01-Jul-22	30-Jun-23	2 200 000		
54.1	All Presses	Preventative maintenance	01-Jul-22	30-Aug-23		Complete	245477.60
54.2	Press no.2	Repair poly pump, actuator valve	Emergency	Repairs		Complete	368413.93
Top Belt Presses							

61.1	Press no. 4	Replace top and bottom belts	Emergency	Repairs		Complete	198172.96
61.2	All Presses	Preventative maintenance	01-Sept-22	30-Oct-23		Complete	334247.04
61.3	Top Belt Presses	Repair rear gate to Sludge Hopper	Emergency	Repairs		Complete	19840.57