



water affairs

Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA



EdCM

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MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

NATIONAL ASSEMBLY: QUESTION 223 FOR WRITTEN REPLY

A draft reply to the above mentioned question asked by Mr F A Rodgers (DA) is attached for your consideration.

DIRECTOR-GENERAL (Acting)

DATE: 12/04/2014

DRAFT REPLY APPROVED/AMENDED ✓

I have already signed this response off.

MRS B E E MOLEWA, MP
MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

DATE: 2014/03/18

FOR WRITTEN REPLY

QUESTION NO 223

DATE OF PUBLICATION IN INTERNAL QUESTION PAPER: 28FEBRUARY 2014
(INTERNAL QUESTION PAPER NO. 4)

223. Mr F A Rodgers (DA) to ask the Minister of Water and Environmental Affairs:

- (1) What is the (a) current storage capacity and (b) average level of the Chelmsford Dam in Newcastle;
- (2) in respect of the specified dam in the past 12 months, (a) what were the extraction requirements, (b) which other entities utilised the specified dam as a water source and (c) what has been the average monthly extraction of these entities;
- (3) (a) what is the maximum purification capacity of treatment plants supplying the Newcastle Municipality and (b) what (i) was the demand on these plants and (ii) breakdown can be given of water sales per volume by the specified municipality in the past 12 months;
- (4) whether the specified municipality has made any applications to her department for an additional dam; if so, (a) has there been any additional water licence application, (b) have any environmental impact assessments been undertaken and (c) what are the full details of the proposed project?

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REPLY:

(1)(a) The storage capacity of the Ntshingwayo Dam (formerly known as the Chelmsford Dam) in Newcastle is 194.56 million cubic meters (m³). The total system yield at Ntshingwayo Dam, taking into account Zaaihoek Dam is 173 million cubic meters per annum.

(1)(b) The average storage volume of the dam over the past 12-months has been 177.83 Mm³ or 91.4% with a minimum of 80%.

(2)(a) The main users with annual volumes in m³ are:

Total Use is - Registered: 71 138 353; Actual: 62 713 310

(2)(b) The following Irrigators use water from the Chelmsford dam:

- Aldoplex Investments;
- Bend in River Farms;
- Department of Rural Development and Land Reform;
- Leominster;
- Rouwenhorst WP;
- Sharp Sharp Fresh Foods;
- Smith CL;
- Somerset Boerdery; and
- Triple C Feedlot.

(2)(c) The average monthly extraction of the above mentioned users is 2 804 264m³.

- Aldoplex Investments – 1 288 585 m³;
- Bend in River Farms – 6 320 m³;
- Department of Rural Development and Land Reform – 92 727 m³;
- Leominster – 75 901 m³;
- Rouwenhorst WP – 64 511 m³;
- Sharp Sharp Fresh Foods – 61 647 m³;
- Smith CL – 10 321 m³;
- Somerset Boerdery – 549 707 m³; and
- Triple C Feedlot – 654 545 m³.

(3)(a) The current design capacity of the Ngagane Water Treatment Works (WTW), which supplies Newcastle, Madadeni, Sizweni and Blaubosch, is 115 mega-litres per day.

(3)(b)(i) The current summer demand on the Ngagane WTW is 120 mega-litres per day. During purification process, the water loss in the Ngagane Water Plant amounts to 5%. The pumping mains that feeds water from the plant to the command reservoirs also lose between 4 -6 % of water. From these two sets of command reservoirs, the water is reticulated or fed to Newcastle East and Newcastle West, including Madadeni, Osizweni and the Buffalo Flats area where the average water loss is at 65%, with Madadeni as the highest in water loss at 79%. Newcastle West also includes the feeding of water to Signal Hill and Northdown reticulated reservoirs and feeding areas, where the loss of water is at the average of 54% and 32% respectively. Water loss in the Lennoxton / Central Business District (CBD) area is at 50%, with the N11 Industrial area having the highest percentage of water loss at 70%. The overall amount of water loss of the combined Newcastle area is 61%.

System input log:

Table: Minimum night flows per supply zone as measured by the reticulation team.

Sub-Region	Bulk meter	AVG		MNF		AVG - MNF		Water loss %
		Average daily flow		Minimum night flow		Active demand		
		(kl/h)	(ML/day)	(kl/h)	(ML/day)	(kl/h)	(ML/day)	
Drankfontein reservoirs	Madadeni	1 120.20	26.9	889.5	21.3	230.7	5.5	79%
	Osizweni	1 480.10	35.5	889.4	19.4	670.7	16.1	55%
	Inverness & Amajuba Buffalo Flats							
	E mandlangeni main							
	Sub Total	2 600.30	62.4	1 698.90	40.8	901.4	21.6	65%
	Northdown reservoir	118.1	2.8	64	1.5	54.1	1.3	54%
	Signal Hill reservoir	136.2	3.3	43.7	1	92.5	2.2	32%
	Lennoxton / CBD bulk	313.9	7.5	156.5	3.8	157.4	3.8	50%
	N11 East Karbochem	215.2	5.2	79.9	1.9	135.3	3.2	37%
	N11 West bulk							
	Riverside industrial area	168.5	4	117.7	2.8	50.8	1.2	70%
	Arbor Park South	29.6	0.7	13.6	0.3	16	0.4	46%
Hilldrop reservoirs	Allen Street bulk							
	Sub Total	981.5	23.6	475.4	11.4	506.1	12.1	48%
SUB-REGIONAL TOTAL	Grand Total	3 581.80	86	2 174.30	52.2	1 407.50	33.8	61%

(3)(b)(ii) The following table shows water sales in Newcastle LM per volume for the past 12 months:

Month	Total Billed (kilolitres)	Total Billed (Rand)
January 2013	1 536722	11 947117.00
February 2013	1 568621	11 945375.00
March 2013	1 520661	11 633574.00
April 2013	1 335419	10 258421.00
May 2013	1 414927	10 895537.00
June 2013	1 494045	11 499410.00
July 2013	1 406700	10 930745.42
August 2013	1 541408	11 804310.00
September 2013	1 591333	12 283956.00
October 2013	1 592368	12 437902.00
November 2013	1 527774	11 496526.00
December 2013	1 588888	12 156549.00
January 2014	1 459 877	11 310 773.00

- (4) The Newcastle Municipality has not made any application to the Department for an additional dam, or for an additional abstraction. UThukela Water, as the water service provider for Newcastle municipality has applied for an additional 21 million m³ of water. The license application is still being assessed by the Department.

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