

Table LBW6.5 : Bulk supply capacities - Future system

Ashton																									
Reservoir / zone	AADD served (kl/d)				Volume of reservoir(s)						Feeder mains								Pumping stations						
	Res. zone	PRV/ Booster zone	Total zone	Total zone & others	Available		Required		Spare		Name	Pipe diameter(s) (mm) / (mm)		Capacity @ 1.8 m/s		Required flow		Spare capacity		Name	Max. duty point		Spare capacity		
					Total (kl)	Total (hxAADD)	Balance (hxAADD)	Emerg'y (hxAADD)	(hxAADD)	(kl)				(l/s)	(xAADD)	(l/s)	(xAADD)	(l/s)	(xAADD)		Capacity (l/s)	Head (m)	(l/s)	(xAADD)	
Cogmanskloof	2 385		2 385	5 751	2 200	22	18	30	-26	-2570	WTP - Cogmanskloof	355		178	2.7	133	2.0	45	0.7	WTP - Cogmanskloof	135	72	2	0.0	
(Langeberg & Ashton Foods) ¹	10 000		10 000	10 000	12 700	30	0	24	6	2700	WTP - Langeberg factory	200	/	315	197	1.7	116	1.0	81	0.7	WTP - Langeberg factory	130	70	14	0.2
Conradiedorp	1 480		1 480	3 366	3 400	55	18	30	7	440	Cogmanskloof - Conradiedorp	355		178	4.6	78	2.0	100	2.6	Cogmanskloof - Conradiedorp	80	25	2	0.1	
Zolani	1 886		1 886	1 886	4 100	52	18	30	4	328	To Zolani reservoir	200		57	2.6	44	2.0	13	0.6	Zolani pump station	45	80	1	0.1	
TOTAL (Town only)			5751		9700	40	18	30	-8	-1802															

Bonnievale																							
Reservoir / zone	AADD served (kl/d)				Volume of reservoir(s)						Feeder mains								Pumping stations				
Res. zone	PRV/ Booster zone	Total zone	Total zone & others	Available		Required		Spare		Name	Pipe diameter(s) (mm) / (mm)		Capacity @ 1.8 m/s		Required flow		Spare capacity		Name	Max. duty point		Spare capacity	
Total (kl)	Total (hxAADD)	Balance (hxAADD)	Emerg'y (hxAADD)	(hxAADD)	(kl)	(l/s)	(xAADD)	(l/s)	(xAADD)	(l/s)	(xAADD)	Capacity (l/s)	Head (m)	(l/s)	(xAADD)								
New Reservoir	2 355		3 041	3 041	6 500	51	18	30	3	418	Old reservoirs - New reservoir	315		140	4.0	70	2.0	70	2.0	Old reservoirs - new reservoir	75	35	5
New Reservoir PRV		686																					
Old Reservoirs	3 096		3 096	6 137	6 475	50	18	30	2	283	WTP - Old reservoirs	300	/	200	184	2.6	142	2.0	42	0.6	Pumps 1 - 4	131	67
TOTAL			6137		12975	51	18	30	3	701													
McGregor																							
Reservoir / zone	AADD served (kl/d)				Volume of reservoir(s)						Feeder mains								Pumping stations				
Res. zone	PRV/ Booster zone	Total zone	Total zone & others	Available		Required		Spare		Name	Pipe diameter(s) (mm) / (mm)		Capacity @ 1.8 m/s		Required flow		Spare capacity		Name	Max. duty point		Spare capacity	
Total (kl)	Total (hxAADD)	Balance (hxAADD)	Emerg'y (hxAADD)	(hxAADD)	(kl)	(l/s)	(xAADD)	(l/s)	(xAADD)	(l/s)	(xAADD)	Capacity (l/s)	Head (m)	(l/s)	(xAADD)								
Reservoir	1 151		1 151	1 411	2 510	52	18	30	4	208													
Booster reservoir			260	260	450	42	18	30	-6	-70	WTP - booster reservoir	150		32	10.6	6	2.0	26	8.6				
Booster pump		260									Reservoir - booster pump	110		17	5.7	14	4.6	3	1.1	Southern booster	14	25	0
TOTAL			1411		2960	50	18	30	2	138													
Montagu																							
Reservoir / zone	AADD served (kl/d)				Volume of reservoir(s)						Feeder mains								Pumping stations				
Res. zone	PRV/ Booster zone	Total zone	Total zone & others	Available		Required		Spare		Name	Pipe diameter(s) (mm) / (mm)		Capacity @ 1.8 m/s		Required flow		Spare capacity		Name	Max. duty point		Spare capacity	
Total (kl)	Total (hxAADD)	Balance (hxAADD)	Emerg'y (hxAADD)	(hxAADD)	(kl)	(l/s)	(xAADD)	(l/s)	(xAADD)	(l/s)	(xAADD)	Capacity (l/s)	Head (m)	(l/s)	(xAADD)								
WTP				7 063							Ashton - Montagu	300		127	1.6	163	2.0						
South	676		676	676	2 000	71	18	30	23	647	WTP - South reservoir	150		32	4.1	16	2.0	16	2.1	WTP - South reservoir	19	81	3
George Brink	2 520		3 459	3 459	4 000	28	18	30	-20	-2918	WTP - George Brink	200		57	1.4	80	2.0	-24	-0.6	WTP - George Brink	44	51	-36
West		373		373	300	19	6	0	13	0	George Brink - West	125		22	5.1	16	3.6	7	1.5	Mill Street	18	55	2
Kanonkop		385		566	200	8	6	0	2	0	George Brink - Kanonkop	150		32	4.9	26	4.0	6	0.9	George Brink	33	43	7
Kanonkop booster		181		181							Kanonkop booster	100		14	6.7	10	4.6	4	2.1	Kanonkop booster	10	30	0
Ashbury Upper	1 098		1 098	2 927	5 500	120	18	30	72	3304	WTP - Ashbury Upper	200	/	315	197	5.8	68	2.0	129	3.8	WTP - Ashbury	107	103
Ashbury Lower	899		899	899	1 500	40	18	30	-8	-298	Ashbury Upper - Ashbury Lower	200		57	5.4	21	2.0	36	3.4				
Badshoogte	904		904	930	2 000	53	18	30	5	192	Ashbury Upper - Badshoogte	160		36	3.4	22	2.0	15	1.4	Ashbury Upper	23	17	1
Qui Sana	26		26	26	500	457	18	30	409	447	To Qui Sana	75		8	26.2	1	2.0	7	24.2	Qui Sana			-1
TOTAL			7063		16000	54	18	30	6	1874													
Robertson																							
Reservoir / zone	AADD served (kl/d)				Volume of reservoir(s)						Feeder mains								Pumping stations				
Res. zone	PRV/ Booster zone	Total zone	Total zone & others	Available		Required		Spare		Name	Pipe diameter(s) (mm) / (mm)		Capacity @ 1.8 m/s		Required flow		Spare capacity		Name	Max. duty point		Spare capacity	
Total (kl)	Total (hxAADD)	Balance (hxAADD)	Emerg'y (hxAADD)	(hxAADD)	(kl)	(l/s)	(xAADD)	(l/s)	(xAADD)	(l/s)	(xAADD)	Capacity (l/s)	Head (m)	(l/s)	(xAADD)								
Reservoir 1 & 5	4 618		5 460	7 032	11 750	52	18	30	4	830	Reservoir 1 - Town	315	/	250	229	2.8	179	2.2	50	0.6	Reservoir 1 - Town	200	27
Reservoir 1 PRV		842																					
Reservoir 4	1 507		1 572	1 572	3 200	49	18	30	1	56	Nkqubela	75	/	150	40	2.2	36	2.0	3	0.2	Nkqubela	27	29
Reservoir 4 booster		65																		Nkqubela booster	4	26	
Reservoir 2	1 890		1 890	3 633	2 250	29	18	30	-19	-1530	Reservoir 1 - 2	250		88	2.1	84	2.0	4	0.1	Reservoir 1 - 2	100	45	16
Reservoir 3	1 743		1 743	1 743	5 000	69	18	30	21	1514	Reservoir 2 - 3	200		57	2.8	40	2.0	16	0.8	Reservoir 2 - 3	40	40	-0
TOTAL			10665		22200	50	18	30	2	870													

Note : Duty point to be confirmed
 Beyond the scope of this study
 New / upgraded infrastructure

¹ Peak daily demand for Langeberg & Ashton Foods