

Table LBW6.2 : Bulk supply capacities - Existing 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	877		877	2 409	2 200	60	18	30	12	446	WTP - Cogmanskloof	355		178	6.4	56	2.0	122	4.4	WTP - Cogmanskloof	92	93	36	1.3	
(Langeberg & Ashton Foods) ¹	10 000		10 000	10 000	2 200	5	0	24	-19	-7800	WTP - Langeberg factory	200	/	200	113	1.0	116	1.0	-3	-0.0	WTP - Langeberg factory	116	77	0	0.0
Conradiedorp	337		675	1 532	2 400	85	18	30	37	1050	Cogmanskloof - Conradiedorp	355		178	10.0	35	2.0	143	8.0	Cogmanskloof - Conradiedorp	145	64	110	6.2	
Conradiedorp PRV		338																							
Zolani	857		857	857	2 100	59	18	30	11	386	To Zolani reservoir	200			57	5.7	20	2.0	37	3.7	Zolani pump station	29	66	9	0.9
TOTAL (Town only)			2409		6700	67	18	30	19	1882															

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)		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)		(mm) / (mm)	(l/s)	(xAADD)	(l/s)	(xAADD)	(l/s)	(xAADD)	Capacity (l/s)		Head (m)	(l/s)	(xAADD)		
New Reservoir	1 273		1 273	1 273	2 500	47	18	30	-1	-46	WTP - New reservoir	200		57	3.8	29	2.0	27	1.8	Pumps 5 - 6	34	100	5	0.3	
Old Reservoirs	2 804		2 804	2 804	975	8	18	30	-40	-4633	WTP - Old reservoirs	300	/	150	159	4.9	65	2.0	94	2.9	Pumps 1 - 4	131	67	66	2.0
TOTAL			4077		3475	20	18	30	-28	-4679															

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)		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)		(mm)	/ (mm)	(l/s)	(xAADD)	(l/s)	(xAADD)	(l/s)	(xAADD)		Capacity (l/s)	Head (m)	(l/s)	(xAADD)
McGregor	593		593	593	2 960	120	18	30	72	1774														
TOTAL			593		2960	120	18	30	72	1774														

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				3 490						Ashton - Montagu	300		127	3.1	81	2.0	46	1.1						
South	405		405	405	2 000	119	18	30	71	1190	WTP - South reservoir	150		32	6.8	9	2.0	22	4.8	WTP - South reservoir	19	81	10	2.1
George Brink	1 077		1 708	1 708	4 000	56	18	30	8	583	WTP - George Brink	200		57	2.9	40	2.0	17	0.9	WTP - George Brink	44	51	4	0.2
West		181		181	300	40	6	0	34	0	George Brink - West	125		22	10.6	8	4.0	14	6.6	Mill Street	6	35	-2	-1.0
Kanonkop		324		451	200	11	6	0	5	0	George Brink - Kanonkop	150		32	6.1	21	4.0	11	2.1	George Brink	33	43	12	2.3
Kanonkop booster		127		127							Kanonkop booster	100		14	9.6	7	4.6	7	5.0	Kanonkop booster	5	50	-2	-1.2
Ashbury Upper	0		0	1 377	2 000						WTP - Ashbury Upper	200		57	3.5	32	2.0	25	1.5	WTP - Ashbury	22	80	-9	-0.6
Ashbury Lower	685		1 353	1 377	1 500	27	18	30	-21	-1206	Ashbury Upper - Ashbury Lower	200		57	3.5	32	2.0	25	1.5					
Badshoogte		668		668	200	7	6	0	1	0	Ashbury Lower - Badshoogte	75		8	1.0	31	4.0	-23	-3.0	Ashbury	7	64	-24	-3.1
Qui Sana	24		24	24	500						To Qui Sana	75		8	28.7	1	2.0	7	26.7	Qui Sana			-1	-2.0
TOTAL			3490		10700	74	18	30	26	3720														

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)		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)		(mm) / (mm)	(l/s)	(xAADD)	(l/s)	(xAADD)	(l/s)	(xAADD)	Capacity (l/s)		Head (m)	(l/s)	(xAADD)		
Reservoir 1	3 645		3 696	4 101	6 750	44	18	30	-4	-642	Reservoir 1 - Town	250	/	250	177	3.7	142	3.0	34	0.7	Reservoir 1 - Town	135	18	-7	-0.2
Reservoir 1 PRV		51																							
Reservoir 4	405		405	405	700	41	18	30	-7	-110	Nkqubela	75			8	1.7	9	2.0	-1	-0.3	Nkqubela	20	32	11	2.3
Reservoir 2	1 029		1 029	1 611	2 250	52	18	30	4	192	Reservoir 1 - 2	250			88	4.7	37	2.0	51	2.7	Reservoir 1 - 2	40	52	3	0.2
Reservoir 3	582		582	582	2 000	82	18	30	34	836	Reservoir 2 - 3	200			57	8.4	13	2.0	43	6.4	Reservoir 2 - 3	27	56	14	2.0
TOTAL			5712		11700	49	18	30	1	276															

Note : Duty point to be confirmed
 Beyond the scope of this study

¹ Peak daily demand for Langeberg & Ashton Foods