

BEAUFORT WEST MUNICIPALITY																																											
Nelsport																																											
BULK SURFACE WATER SUPPLY																TREATED WATER SUPPLY																											
Month	Year	Raw Water Supply										Treatment Losses						System Input Volume		Revenue Water										Non Revenue Water (NRW)													
		Borehole 1	Borehole 2	Borehole 3	Sout River	Total Raw Water Supply	Treated Water to Reservoir	Monthly Treatment Losses [m³]	Monthly Treatment Losses [%]	Annual Treatment Losses [m³]	Annual Treatment Losses [%]	Treated Water to Town (System Input Volume)	Monthly Treatment Losses [m³]	Monthly Treatment Losses [%]	Annual Treatment Losses [m³]	Annual Treatment Losses [%]	Treated Water to Town (System Input Volume)	Billed Metered Consumption (Hospital)	Billed Metered Consumption (Other)	Billed Metered Consumption (Prepaid Equitable share)	Total Billed Metered Consumption	Billed Metered Consumption	Billed Metered Consumption Figures Used	Unbilled Un-metered Consumption	Monthly NRW [m³]	Monthly NRW [%]	Annual NRW [m³]	Annual NRW [%]	Unbilled Metered Consumption	Unbilled Un-metered Consumption	Illegal Connections	Inaccurate Meters	Administrative Errors	Real Losses Reservoirs	Monthly Water Losses [m³]	Monthly Water Losses [%]	Annual Water Losses [m³]	Annual Water Losses [%]					
		[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]				
Jan05	04/05																5230																										
Feb05																	10700																										
Mrt05																	8660																										
Apr05																		6310																									
May05																		6090																									
Jun05	05/06																4280																										
Jul05																	5650	1890																									
Aug05																	6620	2242																									
Sep05																	10700	2641		1 559																							
Oct05																	8443	2494																									
Nov05	06/07																8000	2213		1 559																							
Dec05																	10440	3112	862																								
Jan06																	9262	3054	2903	914	6 871																						
Feb06																	7820	2875	2864	1 185	6 724																						
Mrt06																	10370	2649	2886	835	6 370																						
Apr06	07/08																9130	3418	3067	905	7 390																						
May06																	7080	2001	2653	1 175	6 029																						
Jun06																	7730	1959	2796	1 119	5 874																						
Jul06			360		4285	4981						6330	1349	27.1%			6330	1976	2785	1 031	5 792	5 385	5 385																				
Aug06			336		4782	5177						8400	2326	28.5%			8400	2326	28.5%	1 207	6 428	6 428	6 428																				
Sep06	08/09																8150	2126	2869	1 231	6 226	7 289	7 289																				
Oct06																	9130	2157	2935	1 357	6 449	7 766	7 766																				
Nov06																		12540	2863	1 403	9 372	9 610	9 610																				
Dec06																		12785	3623	2958	1 501	8 282	10 142	10 142																			
Jan07																		12288	2822	2958	2 808	11 895	9 354	9 354																			
Feb07	09/10																	8770	2195	2671	3 069	8 770	8 770	8 770																			
Mrt07			301	6350		4739	11390											8790	2600	22 800	3 473	3 473																					
Apr07			299	268		6799	7366											5080	2286	31 900	3 987	3 987																					
May07			2428	6		9763	9763											7110	1359	2931	2445	8 600	7 746	7 746																			
Jun07			4	2059		9399												6487	2912	31 000	6 560	4 385	4 385																				
Jul07	10/11																	8913	3068	2241	7 150	4 105	4 105																				
Aug07			11	3031		8642	12684											8870	2424	5058	1088	8 570	5 218	5 218																			
Sep07			7	1670		10162	11839											8710	2050	4145	2355	8 550	7 110	7 110																			
Oct07			128	5880		4097	9606											8870	1238	3468	37	9 320	5 855	5 855																			
Nov07			7	7032		1145	8184											8940	3558	3643	1919	9 120	8 249	8 249																			
Dec07	11/12																	8440	4147	2999	1284	8 440	6 551	6 551																			
Jan08			63	5593		2880	8536											8620	1401	3468	37	9 320	5 855	5 855																			
Feb08			18	2251		5631	7900											8160	5687	3064	-371	8 380	9 922	9 922																			
Mrt08			2351	0	460	4653	7464											8500	6118	3402	-1020	8 500	22 279	8 500																			
Apr08			1247	0		7610	8857											9450	6522	5124	-2106	9 450	16 210	9 450																			
May08	12/13																	7927	2712	25 500	7 927	28 642	7 927																				
Jun08			286	3		8900												6823	2369	25 600	6 823																						
Jul08			336	2		7396	7634											7970	7396	3560	7 670	26 915	7 670																				
Aug08			3	102		7348	8053												8547	494	6 100	18 060																					
Sep08			769	2322		10876	13887												9253	6914	7 405	1 768	19 075	1 768																			
Oct08	01/14																	11070	4515	29 000																							
Nov08			2354	1808		11363	15525											11610	2379	6471	2200	11 050</																					



BEAUFORT WEST MUNICIPALITY

Nelsport

BULK SURFACE WATER SUPPLY

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

Raw Water Supply

Treatment Losses

Annual Treatment Losses [m³]

Annual Treatment Losses [%]

Treated Water to Town (System Input Volume)

Monthly Treatment Losses [m³]

Monthly Treatment Losses [%]

Annual Treatment Losses [m³]

Annual Treatment Losses [%]

System Input Volume

Water Services Internal Meters

Revenue Water

Monthly NRW [m³]

Monthly NRW [%]

Annual NRW [m³]

Annual NRW [%]

Unbilled Metered Consumption

Unbilled Un-metered Consumption

Illegal Connections

Inaccurate Meters Estimated Percentages

Administrative Errors (Notifiable)

Real Losses Reservoirs

Monthly Water Losses [m³]

Monthly Water Losses [m³]

Annual Water Losses [m³]

Annual Water Losses [m³]

Month

Year

Borehole 1

Borehole 2

Borehole 3

Sout River

Total Raw Water Supply

Treated Water to Reservoir

Monthly Treatment Losses [m³]

Monthly Treatment Losses [%]

Annual Treatment Losses [m³]

Annual Treatment Losses [%]

Treated Water to Town (System Input Volume)

Monthly Treatment Losses [m³]

Monthly Treatment Losses [%]

Annual Treatment Losses [m³]

Annual Treatment Losses [%]

Treated Water to Town (System Input Volume)

Billed Metered Consumption (Hospital)

Billed Metered Consumption (Other)

Billed Metered Consumption (Prepaid)

Total Billed Metered Consumption

Billed Metered Consumption

Billed Metered Consumption Figures Used

Unbilled Un-metered Consumption

Monthly NRW [m³]

Monthly NRW [%]

Annual NRW [m³]

Annual NRW [%]

Unbilled Metered Consumption

Unbilled Un-metered Consumption

Illegal Connections

Inaccurate Meters Estimated Percentages

Administrative Errors (Notifiable)

Real Losses Reservoirs

Monthly Water Losses [m³]

Monthly Water Losses [m³]

Annual Water Losses [m³]

Annual Water Losses [m³]

Jul16

2016

4467

10943

3393

2137

3397

13394

10943

2451

18.3%

11340

2054

15.3%

11340

4680

6112

6648

11340

3450

3450

7890

69.6%

23

236

551

393

6687

7867

69.4%

Aug16

2016

5798

3392

2697

3486

15283

12795

2488

16.3%

11880

2403

22.3%

11880

4510

1121

6980

11880

3769

2789

8891

74.3%

24

266

621

443

7537

8867

74.6%

Sep16

2016

5025

4852

5301

1425

16603

14057

1846

11.7%

15910

2693

16.2%

15910

4280

1029

7705

15910

3181

2898

9465

60.1%

18

206

505

712

508

8841

10168

73.1%

Oct16

2016

6884

5452

2894

1576

16906

15931

1911

9.3%

16906

4720

28.0%

16906

4720

1029

8208

16906

3860

3360

10220

60.4%

20

266

609

412

709

8810

10168

73.1%

Nov16

2016

6407

5983

1885

4999

19274

16486

2788

14.5%

16240

3034

18.7%

16240

4800

1210

10730

16240

8039

8039

10200

61.8%

23

245

572

408

6943

8169

50.3%

Dec16

2016

2655

2411

431

623

1385

12562

1243

8.9%

10215

1696

16.6%

10215

4075

1096

8722

10215

3360

3360

7812

76.5%

19

206

505

712

508

8841

10168

73.1%

Jan17

2017

5037

0

4013

2738

11783

13081

1298

-11.0%

17751

10.4%

12100

3410

12.6%

24423

14.3%

12100

4800

1210

10730

12100

8644

8644

10200

85.1%

67165

46.2%

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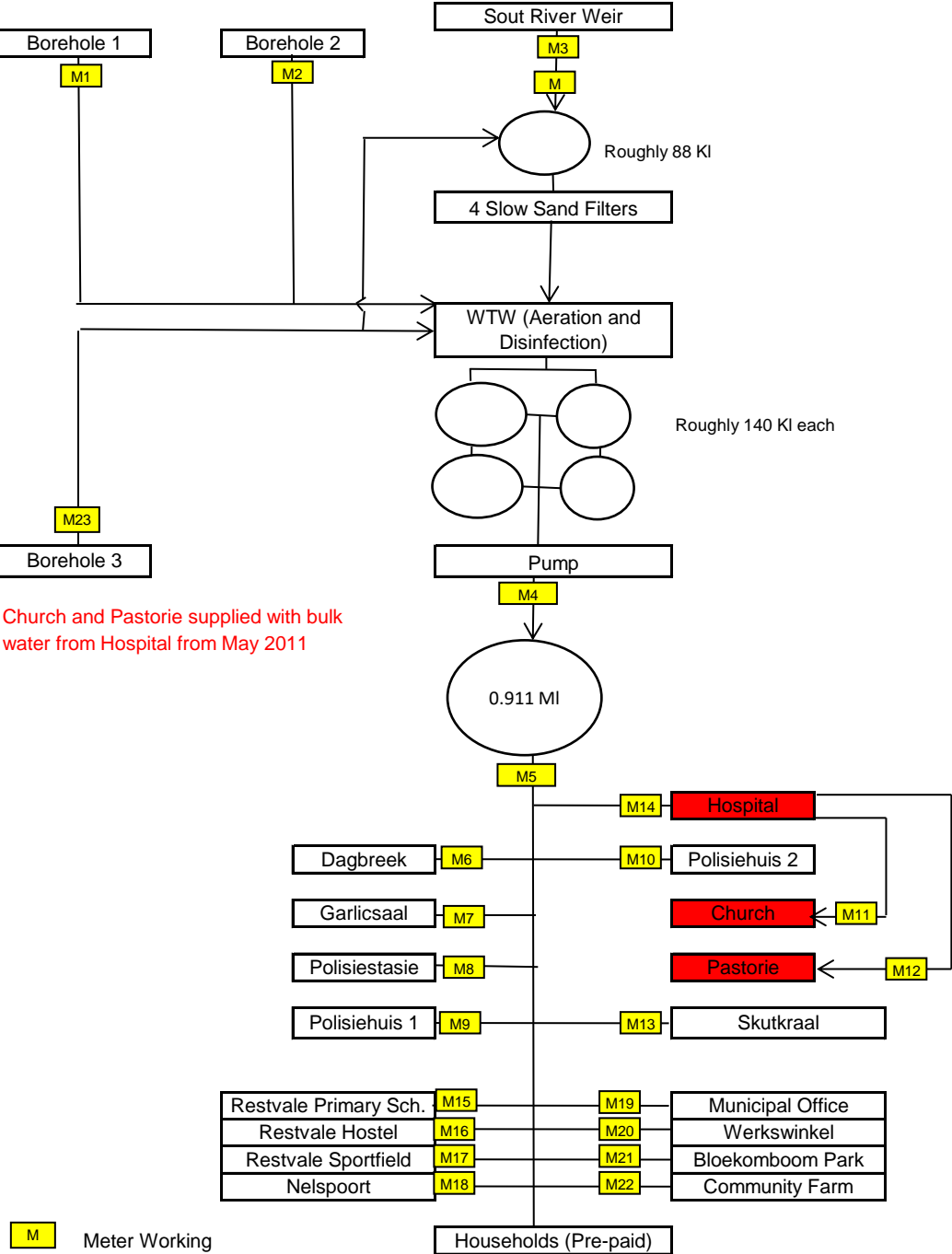
Year	BULK SURFACE WATER SUPPLY																TREATED WATER SUPPLY																		
	Raw Water Supply					Treatment Losses											System Input Volume	Revenue Water				Non Revenue Water (NRW)													
						Water Services												Internal Meters				Monthly NRW [m³]	Monthly NRW [%]	Annual NRW [m³]	Annual NRW [%]	Unbilled Metered Consumption	Unbilled Un-metered Consumption	Apparent Losses				Real Losses			
	Billed Metered Consumption (Hospital)											Billed Metered Consumption (Other)																Illegal Connections	Inaccurate Meters	Administrative Errors	Leaks, Reservoirs overflow, etc	Monthly Water Losses [m³]	Monthly Water Losses [m³]	Annual Water Losses [m³]	Annual Water Losses [m³]
	Treated Water to Reservoir	Monthly Treatment Losses [m³]	Monthly Treatment Losses [%]	Annual Treatment Losses [m³]	Annual Treatment Losses [%]	Treated Water to Town (System Volume)	Monthly Treatment Losses [m³]	Monthly Treatment Losses [%]	Annual Treatment Losses [m³]	Annual Treatment Losses [%]	Treated Water to Town (System Volume)	Billed Metered Consumption (Hospital)	Billed Metered Consumption (Other)	Billed Metered Consumption (Prepaid + Equitable share)	Total Billed Metered Consumption	Billed Metered Consumption	Billed Metered Consumption Figures Used	Billed Un-metered Consumption																	
	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[%]	[m³]	[%]	[m³]	[%]	[m³]	[%]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[%]	[m³]	[%]	[m³]	[%]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]	[m³]
2005/2006																																			
2006/2007	3 343	15 049		91 855	110 047					103 860		6 188	5.6%	100 225	30 268	17 321	8 574	39 260																	
2007/2008	4 717	31 692		78 076	114 485					101 323		9 162	11.5%	101 323	90 599	44 482	6 339	101 780	142 326																
2008/2009	17 878	22 156		138 635	178 689					119 070		59 599	33.4%	119 070	29 015	55 934	34 061	119 070	131 718	100 954															
2009/2010	17 811	21 546		95 637	134 470					120 020		61 230	50.9%	120 020	29 452	60 222	31 234	120 020	120 020	120 020															
2010/2011	48 310	15 318		168 083	144 168					130 550		64 533	28.3%	130 550	27 795	28 438	49 317	131 289	121 761	21 761															
2011/2012	33 428	37 891		138 538	215 697					114 083		50 474	44.2%	114 083	33 428	44 241	26 969	121 143	102 441																
2012/2013	50 788	53 397		63 921	167 816					126 563		53 397	41.4%	126 563	15 752	15 752	15 752	115 333	102 882	514															
2013/2014	53 686	57 271		62 469	131 807					126 384		53 686	42.4%	126 384	24 460	20 942	20 942	126 384	102 441																
2014/2015	63 688	52 157		63 688	173 157					126 568		63 688	50.3%	126 568	13 157	13 157	13 157	126 568	102 441																
2015/2016	55 663	47 448		29 303	168 608					155 373		55 663	7.8%	142 380	26 228	15 607	15 607	142 380	126 568																
2016/2017	54 386	40 098		32 311	43 878					170 673		54 386	10.4%	146 250	24 423	14 396	14 396	146 250	126 568																
2017/2018	39 387	37 034		147 406	132 041					146 456		39 387	26.4%	132 041	20 216	12 808	12 808	146 456	126 568																
2018/2019	25 382	47 491		28 935	158 206					118 090		25 382	21.4%	118 090	20 420	14 603	14 603	118 090	71 042	71 042															
2020	23 000	38 338		24 844	79 887					133 420		23 000	16.9%	133 420	19 480	20 337	68 881	133 420	104 384	81 384															
2021/2021	30 014	27 287		28 935	158 206					133 420		30 014	22.5%	133 420	20 216	12 808	12 808	133 420	104 384	81 384															
2022/2022	46 645	43 405		46 250	179 175					145 620		53 555	26.9%	145 620	62 875	106 663	145 620	51 399	51 399																
2023/2023	34 162	37 034		25 540	127 567					143 238		34 162	23.8%	143 238	15 752	15 752	15 752	143 238	126 568																
2024/2024	58 684	58 610		27 528	199 374					123 060		58 684	47.6%	123 060	13 157	13 157	13 157	123 060	102 441																

Water Balance Components			Water Balance Volumes												
Component	Units		2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024
Consumer Units	Number of connections		369	373	373	373	373	373	378	383	388	394	399	404	409
System Input Volume	(m <sup>3</sup> /day)		427	846	928	978	1046	1074	820	843	941	1088	1001	972	796
Average Billed Metered Cons.	(m <sup>3</sup> /day)		463	338	332	334	338	427	583	582	459	237	353	256	285
Non-Revenue Water	(m <sup>3</sup> /day)		384	494	594	658	709	497	238	336	459	831	647	716	504

Water Balance Components			Percentage Change in Volumes in Iconnection/day, year on year												
Component	Units		2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024
System Input Volume	% Change in Volume	-	-0.16%	0.77%	5.34%	6.98%	2.72%	-14.38%	-8.22%	11.49%	13.50%	-6.32%	-2.89%	-17.83%	
Average Effluent Metered Cons.	% Change in Volume	-	-24.10%	-5.01%	-4.19%	5.08%	71.74%	17.98%	-25.48%	-5.00%	-50.91%	49.13%	-27.51%	15.09%	
Non-Reverse Water	% Change in Volume	-	28.75%	20.30%	10.70%	7.98%	-30.00%	-52.02%	41.13%	36.38%	81.25%	-22.12%	10.54%	-29.61%	

Water Balance Components		2023/2024												
Component	Units	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024
System Input Volume	Rise or Fall	-	Fall	Rise	Rise	Rise	Rise	Fall	Fall	Rise	Rise	Fall	Fall	Fall
Average Effluent Metered Cons.	Rise or Fall	-	Fall	Fall	Fall	Fall	Rise	Rise	Fall	Fall	Fall	Fall	Rise	Rise
Non-Revenue Water Ratio	Rise or Fall	-	Rise	Rise	Rise	Rise	Rise	Rise	Rise	Fall	Fall	Fall	Rise	Rise

NELSPOORT



Legend	Losses	Description	Calculations (Meters)
A	Bulk Water Supply Losses	Borehole 1	M1
B		Borehole 2	M2
C		Borehole 3	M23
D		Soutriver	M3
E		Total Raw Water Supply	M1 + M2 +M23+ M3
F		Treated Water to Reservoir	M4
G		Monthly Treatment Losses m³	E - F
H		Monthly Treatment Losses %	G / E
I		Annual Treatment Losses m³	G over 12 months
J		Annual Treatment Losses %	H over 12 months
K	NRW	Treated Water to Town (022)	M5
L		Monthly Treatment Losses m³	E - K
M		Monthly Treatment Losses %	L / E
N		Annual Treatment Losses m³	L over 12 months
O		Annual Treatment Losses %	M over 12 months
P		Treated Water to Town (022)	K
Q		Consumption Hospital	M 14
R		Consumption Other	M6+M7+M8+M9+M10+M14+M13+M15+M16+M17+M
S		Consump. Prepaid + Equitable	M5 - (Q + R)
T		Total	Q + R + S
U		Billed Metered Consumption	Billed Metered Consumption (Treasury)
V		Billed Metered Consumption figures Used	Either T or U
W		Billed Unmetered Consumption	Billed Unmetered Consumption (Treasury)
X		Monthly NRW m³	P - V
Y		Monthly NRW %	X / P
Z		Annual NRW m³	X over 12 months
AA		Annual NRW %	Y over 12 months
AB	Water Losses	Unbilled Metered Consumption	From Engineering Department
AC		Unbilled Unmetered Consumption	0.002 x K
AD		Apparent Losses: Illegal Connections Estimate	(P - V - W - AB - AC) x %
AE		Apparent Losses: Inaccurate Meters Estimate	(P - V - W - AB - AC) x %
AF		Apparent Losses: Administrative Errors Estimate	(P - V - W - AB - AC) x %
AG		Real Losses	(P - V - W - AB - AC) x %
AH		Monthly Water Losses m3	(P - V - W - AB - AC)
AI		Monthly Water Losses %	AH / P
AJ		Annual Water Losses m3	AH over 12 months
AK		Annual Water Losses %	AI over 12 months

