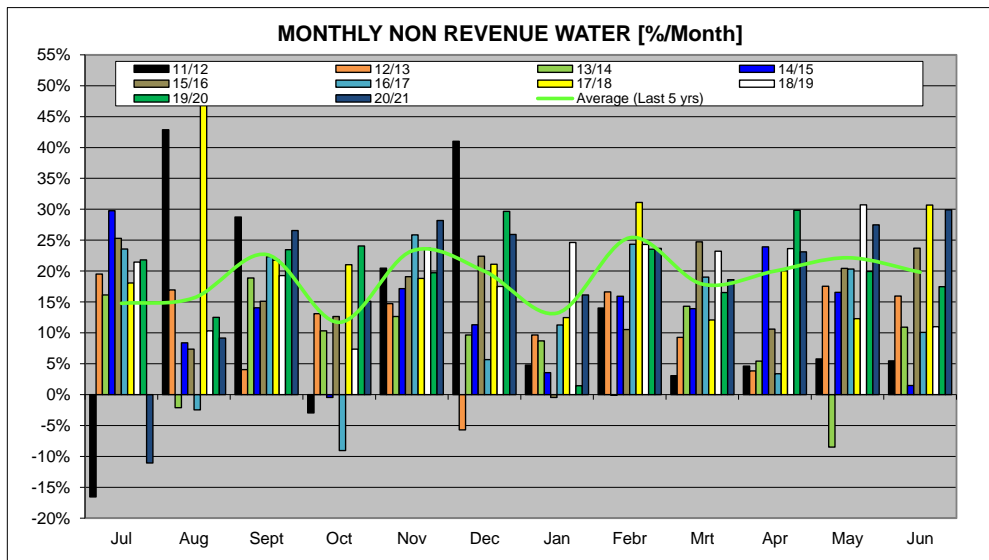
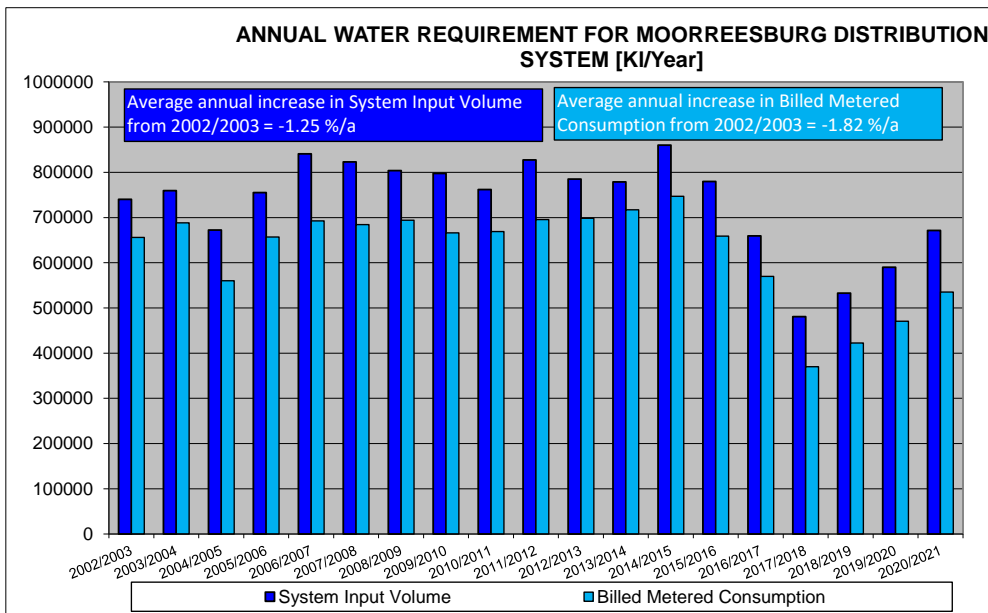
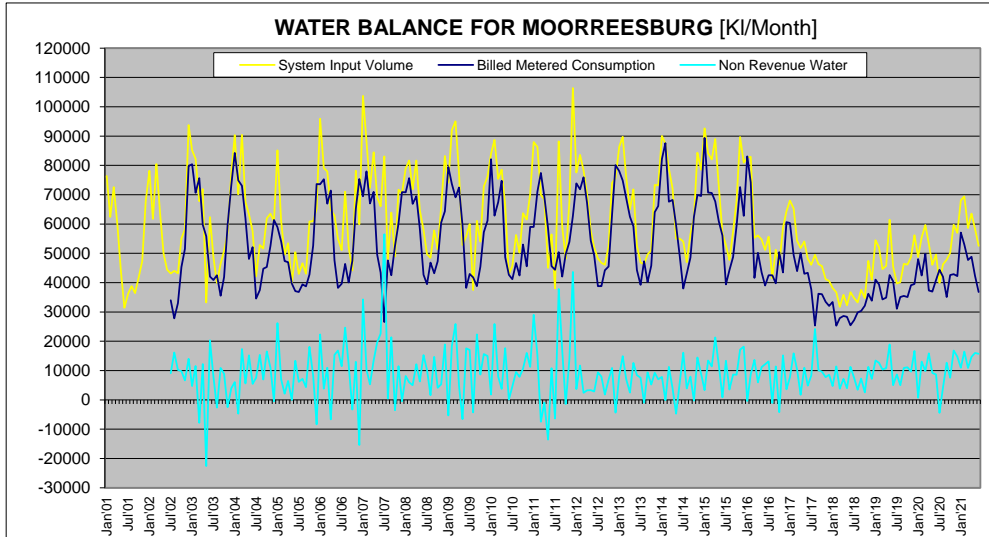


SWARTLAND MUNICIPALITY																					
Moorreesburg																					
TREATED WATER SUPPLY																					
Month	Year	System Input Volume			Revenue Water		Non Revenue Water (NRW)				Non Revenue Water (NRW)				Monthly Water Losses	Monthly Water Losses	Annual Water Losses	Annual Water Losses			
		Treated Water from WTW	Billed Metered Consumption	Billed Un-metered Consumption	Monthly NRW	Monthly NRW	Annual NRW	Annual NRW	Unbilled Metered Consumption	Unbilled Un-metered Consumption	Apparent Losses			Real Losses							
											Illegal Connections	Inaccurate Meters	Administrative Errors	Leaks, Reservoirs overflow, etc.							
														Estimated Percentages (Variable)							
2%	10%	5%	8%																		
[m ³]	[m ³]	[m ³]	[m ³]	[%]	[m ³]	[m ³]	[m ³]	[m ³]	[m ³]	[m ³]	[m ³]	[m ³]	[m ³]	[m ³]	[m ³]	[m ³]	[m ³]				
Jan01		76360																			
Feb01		62430																			
Mar01		72370																			
Apr01		58610																			
May01		43860																			
Jun01		31430																			
Jul01		36190																			
Aug01		38790																			
Sep01		36440																			
Oct01		41370																			
Nov01		47390																			
Dec01		67960																			
Jan02		76150																			
Feb02		61740																			
Mar02		80490																			
Apr02		63630																			
May02		65890																			
Jun02		44490																			
Jul02		43120	34012	0	9108	21.1%															
Aug02		43890	27804	0	16186	36.8%															
Sep02		43190	32993	0	10187	23.6%															
Oct02		55080	45337	0	9743	17.7%															
Nov02		58180	51542	0	6638	11.4%															
Dec02		93900	79504	0	13907	14.8%															
Jan03		85125	80412	0	4713	5.5%	84196	11.4%										82716	11.2%		
Feb03		82234	70695	0	11540	14.0%															
Mar03		67800	75533	0	8891	17.5%															
Apr03		71970	59757	0	12214	17.0%															
May03		33240	55816	0	-22576	-67.9%															
Jun03		62340	42580	0	20201	32.5%															
Jul03		49700	40983	0	7817	15.7%															
Aug03		39935	42553	0	-2618	-6.6%															
Sep03		46450	35562	0	10888	23.4%															
Oct03		50840	41949	0	8891	17.5%															
Nov03		57100	59569	0	-2469	-4.3%															
Dec03		77240	73256	0	3984	5.2%	71533	9.4%													
Jan04		86535	74761	0	6094	6.7%															
Feb04		70780	74976	0	-4696	-6.7%															
Mar04		90400	73034	0	17366	19.2%															
Apr04		67600	61997	0	5603	8.3%															
May04		63300	48322	0	15208	24.0%															
Jun04		57990	52115	0	5475	9.5%															
Jul04		42170	34597	0	7573	18.0%															
Aug04		52830	37509	0	15322	29.0%															
Sep04		51670	44747	0	6923	13.4%															
Oct04		61910	45359	0	16552	26.7%															
Nov04		63566	52565	0	11001	17.3%															
Dec04		60899	45011	0	5017	8.2%															
Jan05		85180	56958	0	26222	30.8%	111956	16.7%													
Feb05		61080	54065	0	7016	11.5%															
Mar05		49490	47363	0	2127	4.3%															
Apr05		53420	46654	0	5466	12.1%															
May05		39640	39697	0	-7	-0.1%															
Jun05		50400	37088	0	13313	26.4%															
Jul05		42540	38774	0	6168	14.4%															
Aug05		46580	39382	0	7198	15.5%															
Sep05		43070	38748	0	4322	10.0%															
Oct05		60900	42770	0	18130	29.8%															
Nov05		60930	52655	0	15276	25.1%															
Dec05		65260	73608	0	-8348	-12.8%															
Jan06		99100	73556	0	22354	23.3%	96363	13.0%													
Feb06		79100	62897	0	3813	4.8%															
Mar06		77930	66981	0	10949	14.1%															
Apr06		64740	71411	0	-6671	-10.3%															
May06		62970	47620	0	15349	24.4%															
Jun06		55010	38187	0	16823	30.6%															
Jul06		51090	39624	0	11467	22.4%															
Aug06		71030	46421	0	24809	34.8%															
Sep06		52170	40569	0	12101	23.2%															
Oct06		44150	47446	0	-8296	-7.5%															
Nov06		78180	65186	0	12994	16.6%															
Dec06		59620	52915	0	-15385	-25.8%															
Jan07		103730	69475	0	34255	33.0%	148029	17.6%													
Feb07		86230	77941	0	10290	11.7%															
Mar07		72440	67047	0	5293	7.3%															
Apr07		84460	70476	0	13486	16.0%															
May07		69190	49614	0	19576	28.3%															
Jun07		66680	43438	0	22642	34.3%															
Jul07		63890	56974	0	6696	10.5%															
Aug07		48000	47556	0	444	0.9%															
Sep07		63880	42536	0	21344	33.4%															
Oct07		49010	52558	0	-3548	-7.2%															
Nov07		71080	71402	0	11402	16.0%															
Dec07		70440	70884	0	-444	-0.6%															
Jan08		78960	70829	0	8131	10.3%															
Feb08		67670	76577	0	8906	13.2%															
Mar08		71960	66856	0	5004	7.0%															
Apr08		81640	69520	0	12120	14.8%															
May08		64710	58454	0	6256	9.7%															
Jun08		59010	42710	0	16300	27.4%															
Jul08		49730	39519	0	10211	20.5%															
Aug08		48480	46867	0	1613	3.3%															
Sep08		57850	43198	0	11651	23.3%															
Oct08		51370	47248	0	4121	8.0%															
Nov08		65780	60486	0	5294	8.0%															
Dec08		83200	64325	0	18875	22.7%															
Jan09		74140	57370	0	16770	22.7%	109572	13.6%													
Feb09		92060	73700	0	18360	19.9%															
Mar09		95020	69127	0	25893	27.3%															
Apr09		72990	6149																		

SWARTLAND MUNICIPALITY																					
Moorreesburg																					
		TREATED WATER SUPPLY																			
Month	Year	System Input Volume			Revenue Water		Non Revenue Water (NRW)														
		Treated Water from WTW	Billed Metered Consumption	Billed Un-metered Consumption	Monthly NRW	Monthly NRW	Annual NRW	Annual NRW	Unbilled Metered Consumption	Unbilled Un-metered Consumption	Apparent Losses			Real Losses		Monthly Water Losses	Monthly Water Losses	Annual Water Losses	Annual Water Losses		
											Illegal Connections	Inaccurate Meters	Administrative Errors	Leaks, Reservoirs overflow, etc.							
												Estimated Percentages (Variable)									
												2%	10%	5%	8%						
										[m³]	[m³]	[m³]	[m³]	[m³]	[%]	[m³]	[%]	[m³]	[%]		
Jul14	14/15	54068	37968	0	16100	29.8%	113346	13.2%	0	108	320	1599	800	13273	15992	29.6%	111625	13.0%			
Aug14		46980	43035	0	3945	8.4%			0	94	77	385	193	3851	3196	851				11831	8.2%
Sep14		56096	48584	0	7512	13.4%			0	113	156	782	391	6492	6492	11963				16.4%	
Oct14		62134	62410	0	-276	-0.4%			0	124	-8	-40	-20	-332	-400	-400				-0.6%	
Nov14		84367	69905	0	14462	17.1%			0	169	286	1429	715	11863	14293	16.9%					
Dec14		78467	69590	0	8877	11.3%			0	157	174	872	436	7238	8720	11.1%					
Jan15		92883	83932	0	8951	9.6%			0	185	62	310	155	2369	3096	3.3%					
Feb15		84160	70752	0	13408	15.9%			0	168	265	1324	662	10889	13240	15.7%					
Mar15		82000	70602	0	11398	13.9%			0	164	225	1123	562	9324	11234	13.7%					
Apr15		88984	67711	0	21273	23.9%			0	178	422	2110	1055	17509	21095	23.7%					
May15		73091	60862	0	12229	16.6%			0	148	239	1196	598	9929	11963	16.4%					
Jun15		56878	56044	0	834	1.5%			0	114	14	72	36	598	720	1.3%					
Jul15	52752	39409	0	13343	25.3%	0	106	265	1324	662	10887	13277	25.1%								
Aug15	47740	44229	0	3511	7.4%	0	95	68	342	171	2635	3416	7.2%								
Sep15	57422	48750	0	8672	15.1%	0	115	171	856	428	7102	8557	14.9%								
Oct15	65045	59439	0	5606	8.6%	0	136	169	847	423	7030	8470	12.4%								
Nov15	89720	72602	0	17118	19.1%	0	179	339	1694	847	14059	16939	18.9%								
Dec15	80914	62780	0	18134	22.4%	0	162	359	1797	899	14917	17922	22.2%								
Jan16	82707	63074	0	19633	23.7%	0	165	-42	155	-27	-442	-532	-0.6%								
Feb16	82958	74230	0	8728	10.5%	0	166	171	856	428	7107	8562	10.3%								
Mar16	55315	41640	0	13675	24.7%	0	111	271	1356	678	11258	13564	24.5%								
Apr16	65190	50187	0	15003	23.0%	0	112	117	585	293	4856	5851	10.4%								
May16	54879	43506	0	11373	20.6%	0	109	221	1106	553	9183	11064	20.2%								
Jun16	51155	39022	0	12133	23.7%	0	102	241	1203	602	9985	12031	23.5%								
Jul16	55679	42553	0	13126	23.6%	0	111	260	1301	651	10802	13015	23.4%								
Aug16	41474	42503	0	-1029	-2.5%	0	83	-22	-111	-56	-923	-1112	-2.7%								
Sep16	51197	39784	0	11413	22.3%	0	102	244	1133	567	9484	11331	22.1%								
Oct16	46202	50379	0	-4177	-9.0%	0	92	-85	-427	-213	-3544	-4289	-9.2%								
Nov16	58648	43485	0	15163	25.9%	0	117	301	1505	752	12488	15046	25.7%								
Dec16	64333	60883	0	3450	5.3%	0	129	70	362	176	2923	3521	5.5%								
Jan17	66513	60347	0	6166	9.3%	0	136	161	735	376	6350	7530	11.1%								
Feb17	65320	49431	0	15889	24.3%	0	131	315	1576	788	13079	15758	24.1%								
Mar17	54249	43934	0	10315	19.0%	0	108	204	1021	510	8471	10207	18.8%								
Apr17	51845	50090	0	1755	3.4%	0	104	35	165	83	1371	1651	3.2%								
May17	82707	63074	0	19633	23.7%	0	109	221	1096	553	9183	10962	23.7%								
Jun17	48168	43313	0	4855	10.1%	0	95	95	476	238	3950	4759	9.9%								
Jul17	46056	37729	0	8327	18.1%	0	92	165	823	412	6835	8235	17.9%								
Aug17	49514	25557	0	24157	48.8%	0	99	481	2405	1203	19958	24058	48.8%								
Sep17	46380	36204	0	10176	21.9%	0	99	208	998	499	8389	9983	21.9%								
Oct17	45638	36040	0	9598	21.0%	0	91	91	475	238	3887	4757	20.8%								
Nov17	41199	33446	0	7753	18.8%	0	82	153	767	384	6367	7671	18.6%								
Dec17	40912	32046	0	8866	21.6%	0	81	170	848	424	7042	8485	20.9%								
Jan18	38131	33372	0	4759	12.5%	0	76	94	468	234	3887	4683	12.3%								
Feb18	36747	25320	0	11427	31.1%	0	73	227	1135	568	9423	11354	30.9%								
Mar18	31755	27921	0	3834	12.1%	0	64	75	377	189	3130	3770	11.9%								
Apr18	35838	28655	0	7183	20.0%	0	72	142	711	356	5902	7111	19.8%								
May18	32303	28308	0	3995	12.3%	0	69	78	390	195	3340	3936	12.1%								
Jun18	36716	25454	0	11262	30.7%	0	73	224	1119	559	9287	11189	30.5%								
Jul18	34707	27257	0	7450	21.5%	0	67	138	688	344	5713	6883	19.8%								
Aug18	33267	29831	0	3436	10.3%	0	565	57	287	144	2383	2871	8.6%								
Sep18	37556	33324	0	4232	11.4%	0	573	133	638	333	5527	6659	17.7%								
Oct18	34719	32162	0	2557	7.4%	0	567	40	199	99	1651	1990	5.7%								
Nov18	47459	36221	0	11238	23.7%	0	593	213	1065	532	8835	10645	22.4%								
Dec18	40995	33820	0	7175	17.5%	0	580	132	660	330	5474	6595	16.1%								
Jan19	54480	41061	0	13419	24.6%	0	607	256	1281	641	10534	12812	23.5%								
Feb19	52034	39382	0	12652	24.3%	0	602	241	1205	602	10001	12050	23.2%								
Mar19	44629	34272	0	10357	23.2%	0	587	195	977	488	8109	9770	21.9%								
Apr19	45716	34914	0	10802	23.6%	0	589	204	1021	511	8476	10213	22.3%								
May19	61480	48887	0	12593	20.5%	0	621	365	1827	914	15166	18272	29.7%								
Jun19	45464	40462	0	5002	11.0%	0	589	88	441	221	3663	4413	9.7%								
Jul19	39716	31057	0	8659	21.8%	0	577	162	808	404	6708	8082	20.3%								
Aug19	40157	35134	0	5023	12.5%	0	578	89	444	222	3689	4445	11.1%								
Sep19	46381	35487	0	10894	23.5%	0	591	208	1028	514	8535	10283	22.2%								
Oct19	46191	35078	0	11113	24.1%	0	590	210	1052	526	8734	10523	22.8%								
Nov19	48687	39077	0	9610	19.7%	0	595	180	901	451	7482	9015	18.5%								
Dec19	56192	39527	0	16665	29.7%	0	610	321	1605	803	13325	16055	28.8%								
Jan20	48753	48042	0	711	1.5%	0	596	2	12	6	115	115	0.2%								
Feb20	55476	42419	0	13057	23.5%	0	609	249	1245	622	10332	12448	22.4%								
Mar20	58661	49796	0	8865	16.5%	0	617	185	925	462	7676	9248	15.5%								
Apr20	53218	37343	0	15875	29.8%	0	604	305	1527	764	12675	15271	28.7%								
May20	46124	36088	0	9936	21.5%	0	590	172	861	430	7143	8606	18.7%								
Jun20	49570	40917	0	8653	17.5%	0	597	161	808	403	6686	8056	16.3%								
Jul20	39952	34372	0	5580	-11.1%	0	578	-100	-500	-250	-4148	-4998	-12.5%								
Aug20	46250	42011	0	4239	9.2%	0	591	73	365	182	3028	3649	7.9%								
Sep20	47790	35099	0	12691	26.6%	0	584	242	1210	605	10041	12098	25.3%								
Oct20	50208	42627	0	7581	15.1%	0	588	140	698	349	5796	6983	13.9%								
Nov20	59742	42904	0	16838	28.2%	0	617	324	1622	811	13463	16221	27.2%								
Dec20	56983	42199	0	14784	25.9%	0	612	283	1417	709	11762	14172	24.9%								
Jan21	68889	57110	0	11779	18.1%	0	634	207	1038	517	8566	10345	15.2%								
Feb21	69447	53015	0	16432	23.7%	0	637	316	1579	790	13110	15795	22.7%								
Mar21	58650	47744	0	10906	18.6%	0	615	206	1029	515	8542	10291	17.5%								
Apr21	63540	48846	0	14694	23.1%	0	625	281	1407	703	11677	14089	22.1%								
May21	58409	47564	0	10845	18.6%	0	616	309	1543	779	12608	15431	26.4%								
Jun21	52540	36835	0	15705	29.9%	0	603	302	1510	755	12535										

WATER BALANCE AND USAGE FOR MOORREESBURG DISTRIBUTION SYTEM



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