

1. INTRODUCTION

Drinking water is supplied by 25 municipalities (WSAs) in the Western Cape Province, made up of 1 metro (Category A) and 24 local municipalities (3 Category B1; 6 Category B2; 15 Category B3). Data sets were received for 18 municipalities representing a total population of 5 382 561 and 1 151 869 households. These households are supplied via a total mains network of 16 620 km via 932 420 connections, with an average of 56 connections per km pipeline. A total of 925 757 (99.3%) of all connections are metered and 6 663 (0.7%) are unmetered. The average system pressure is 46 m, ranging between 28 m to 60 m reported by the various municipalities.

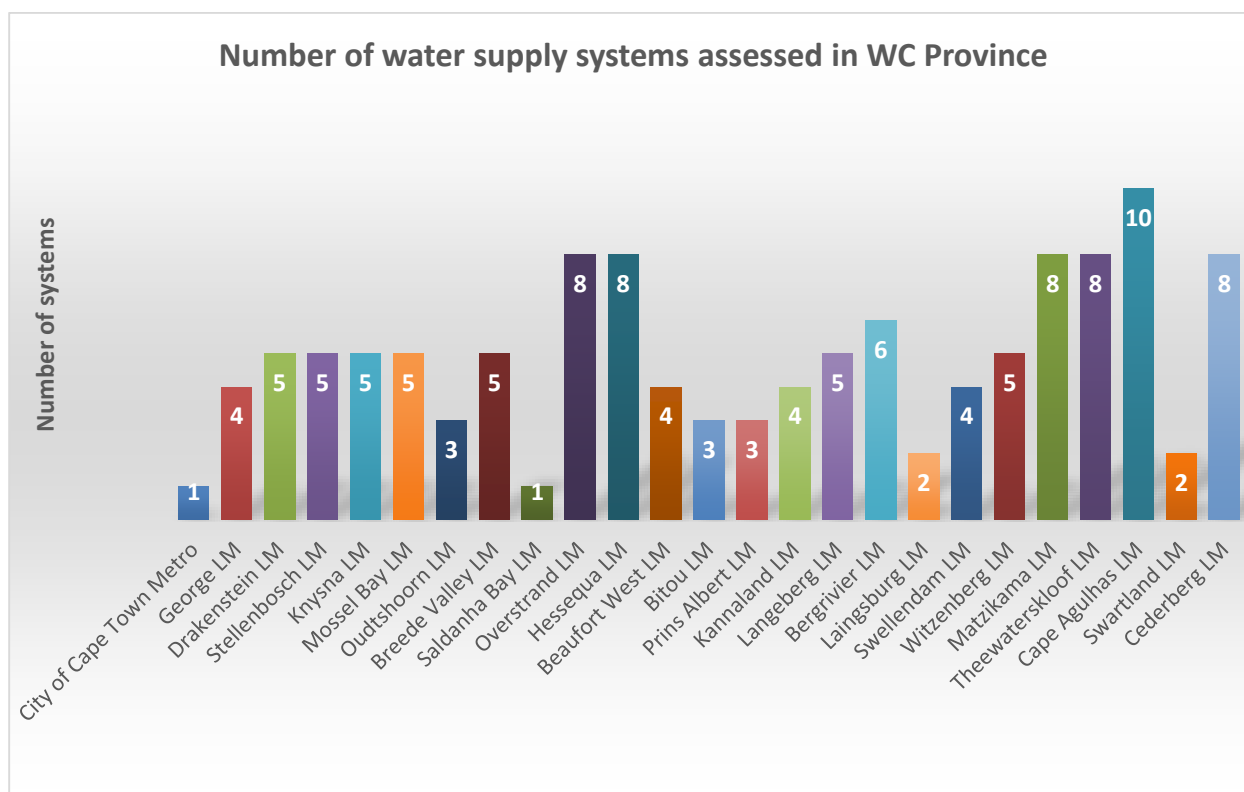
**Figures based on verified information only.*

Municipality Name [WSA]	Munic Category	No. of Systems	No. of credible data sets	Population and Number of Municipal Categories						
				A	B1	B2	B3	B4	C1	C2
City of Cape Town Metro	A	1	√	3 829 193						
George LM	B1	4	√		193 670					
Drakenstein LM	B1	5	√		215 187					
Stellenbosch LM	B1	5	√		222 574					
Knysna LM	B2	5	√			56 125				
Mossel Bay LM	B2	5	x			x				
Oudtshoorn LM	B2	3	√			94 780				
Breede Valley LM	B2	5	√			172 398				
Saldanha Bay LM	B2	1	√			83 323				
Overstrand LM	B2	8	√			80 430				
Hessequa LM	B3	8	x				x			
Beaufort West LM	B3	4	√				44 482			
Bitou LM	B3	3	√				49 164			
Prins Albert LM	B3	3	x				x			
Kannaland LM	B3	4	x				x			
Langeberg LM	B3	5	√				70 411			
Bergrivier LM	B3	6	x				x			
Laingsburg LM	B3	2	√				5 713			
Swellendam LM	B3	4	x				x			
Witzenberg LM	B3	5	√				62 662			
Matzikama LM	B3	8	x				x			
Theewaterskloof LM	B3	8	√				77 491			
Cape Agulhas LM	B3	10	√				28 786			
Swartland LM	B3	2	√				81 349			
Cederberg LM	B3	8	√				14 823			
Totals		122	18	3 829 193	631 431	487 056	434 881	0	0	0
				5 382 561						

Municipality Name [WSA]	Munic Category	No. of Systems	No. of credible data sets	Population and Number of Municipal Categories						
				A	B1	B2	B3	B4	C1	C2
				1	3	6	15	0	0	0
				25						

2. No Drop Results for 2012/13

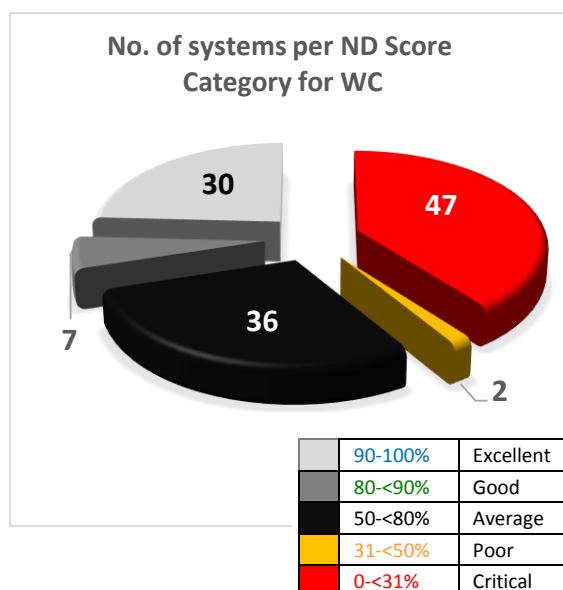
The No Drop results show that 122 water supply systems have been assessed in 25 municipalities. In some cases, DWS was necessitated to collapse some of the supply systems into one integrated system for the purposes of this No Drop Report.



A total of 6 WSAs opted to provide evidence for 'one integrated system' instead of regarding each individual supply systems separately. This accounted for 24 systems being integrated into 6 systems. The remaining 98 systems were assessed as stand-alone water supply systems. (Note: the 24 systems were allocated with individual No Drop scores to ensure counting of No Drops with >90% score).

2013 WC NO DROP COMPARATIVE ANALYSIS	
Performance Category	Performance indicators
Number of WSAs assessed	25 (100%)
Number of systems assessed	122 (100%)
Number of integrated systems*	6 (24%)
Average No Drop score	52,2%
Number of No Drop scores ≥50%	73 (60%)
Number of No Drop scores <50%	49 (40%)
Number of No Drop awards ≥90%	30 (24.6%)
PROVINCIAL (weighted) NO DROP SCORE	81,2%

* Per original scorecard data



In total, 60% of the water supply systems obtained >50% No Drop score, with the balance of 40% <50%. The Provincial (weighted) No Drop Score of 81.2% falls within the No Drop category of ‘Good Performance’, and sits in 1st position nationally. This achievement is to be commended considering that this is the first No Drop assessment for the Western Cape municipalities. The Overstrand LM, Swartland LM, Theewaterskloof LM, Drakenstein LM and City of Cape Town Metro achieved an excellent score with No Drop scores >90%. These scores indicate that the municipalities are knowledgeable and have the required processes and systems in place to address non-revenue water and water losses.

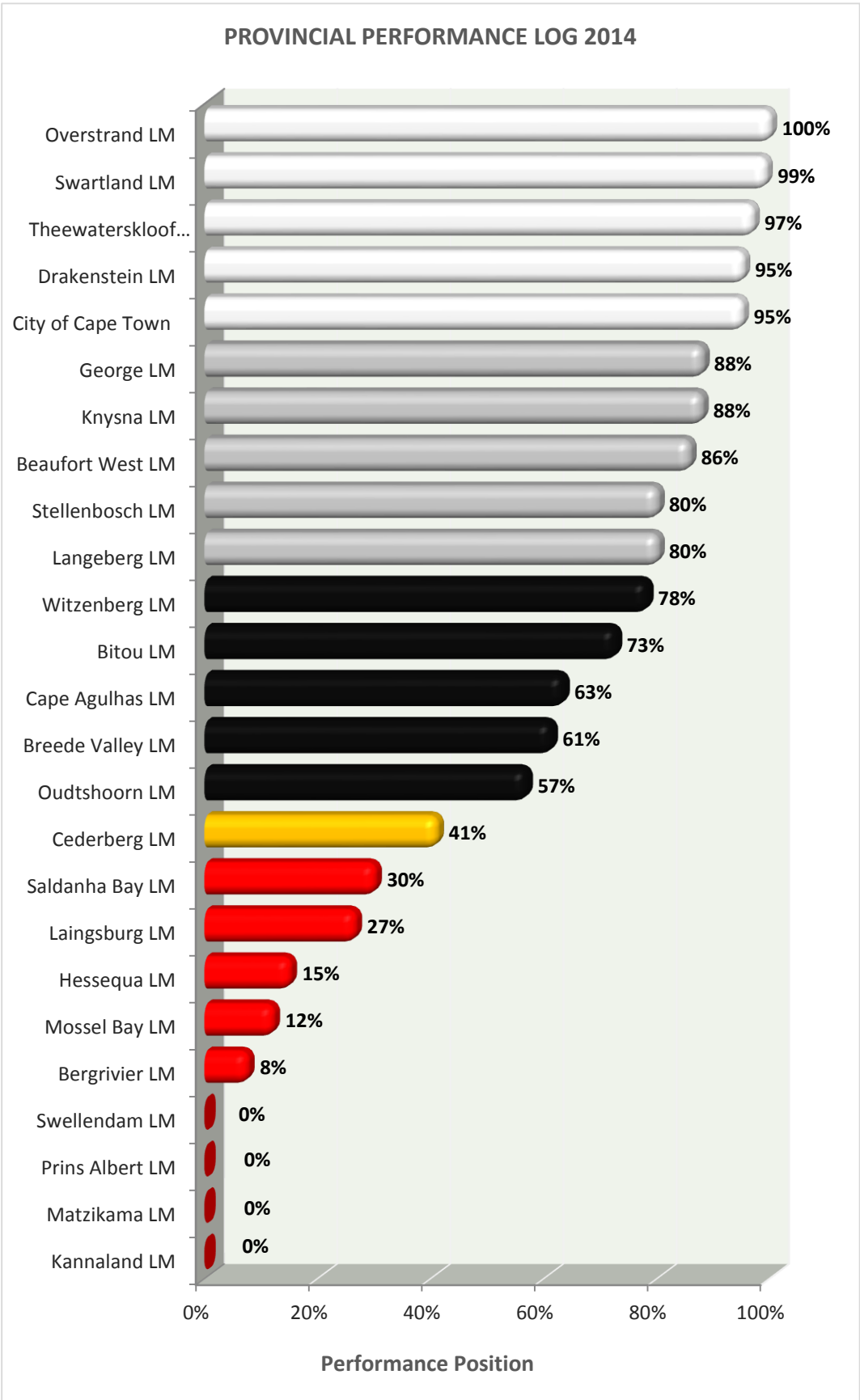
Contrary to the above, an average No Drop score of 52.2% points to an average performance for municipalities on the whole. This provincial average is weighed down by a number of municipalities who could not provide evidence for assessment. These municipalities are not to be discouraged, as this is the first year of No Drop assessments, and the No Drop introduction has been a learning curve and awareness raising for all stakeholders to better prepare for the next (stand-alone) No Drop assessment.

Thirty (30) of the 124 systems achieved No Drop status and earned scores of >90%. Fifteen WSAs achieved No Drop scores of >50% and nine WSAs are in the critical state performance category with No Drop scores <31%. The gap between critical and average performance is a minimum of 26% differential.

Position	WSA Name	2014 No Drop Score	No. of Systems with <31% No Drop score
1	Overstrand LM	100,0%	None
2	Swartland LM	99,2%	8 of 8
3	Theewaterskloof LM	96,9%	5 of 5
4	Drakenstein LM	95,2%	1 of 5
5	City of Cape Town	95,0%	None
6	George LM	88,0%	None
7	Knysna LM	87,8%	None

Position	WSA Name	2014 No Drop Score	No. of Systems with <31% No Drop score
8	Beaufort West LM	85,7%	3 of 3
9	Langeberg LM	80,0%	4 of 4
9	Stellenbosch LM	80,0%	None
10	Witzenberg LM	78,1%	6 of 6
11	Bitou LM	72,5%	None
12	Cape Agulhas LM	63,2%	1 of 2
13	Breede Valley LM	61,1%	4 of 4
14	Oudtshoorn LM	56,7%	None
15	Cederberg LM	41,0%	8 of 8
16	Saldanha Bay LM	30,0%	None
17	Laingsburg LM	26,5%	None
18	Hessequa LM	15,0%	None
19	Mossel Bay LM	12,0%	None
20	Bergrivier LM	7,5%	1 of 1
21	Kannaland LM	0,0%	None
21	Matzikama LM	0,0%	None
21	Prins Albert LM	0,0%	6 of 8
21	Swellendam LM	0,0%	None

The Provincial Barometer for the Province, with a weighted average No Drop score of 81.2%, is shown in the figure below.



The following municipalities and water supply systems attained No Drop scores of >90%. The Regulator considers these municipalities to be knowledgeable on the status of their water use and having the necessary strategies and plans in place to address non-conformance:



- Beaufort West LM: Beaufort West, Merweville and Nelspoort (3 systems)
- City of Cape Town Metro: City of Cape Town (1 system)
- Drakenstein LM: Bainskloof, Drakenstein-Paarl, Gouda, Hermon and Saron (5 systems)
- Knysna LM: Buffalo Bay, Karatara, Rheenendal and Sedgfield (4 systems)
- Overstrand LM: Greater Hermanus, Buffels River, Kleinmond, Stanford, Greater Gansbaai, Buffeljags Bay, Baardskeerdersbos and Pearly Beach (8 systems)
- Swartland LM: Malmesbury and Moorreesburg (2 systems)
- Theewaterskloof LM: Caledon, Botrivier, Genadendal, Grabouw, Greyton, Tesselaarsdal and Villiersdorp (7 systems)

3. THE QUALITY OF EVIDENCE PROVIDED (KPA 1 AND 2)

Municipalities were required to present evidence to satisfy 3 sub-criteria of the 2014 Blue Drop Audit:

- *Sub-criteria 6.1 of the audit measures the consistency and credibility of the MONTHLY and ANNUAL composite IWA water balance data and diagram based on actual meter readings per system as per Regulation 509 of 2001 Clause 10 of the Water Supply Regulations.*
- *Sub-criteria 6.2 reviews the Municipality's strategies and business plans (and its inclusion in the IDP) to reduce the system input volume, water losses and NRW and evaluates the progress made with the implementation of these strategies and business plans.*
- *Sub-criteria 6.3 measures the performance of the WSI against international best practice benchmarks and the water demand management regulations, and is focussed on knowing and improving the KPI status within the WSI.*

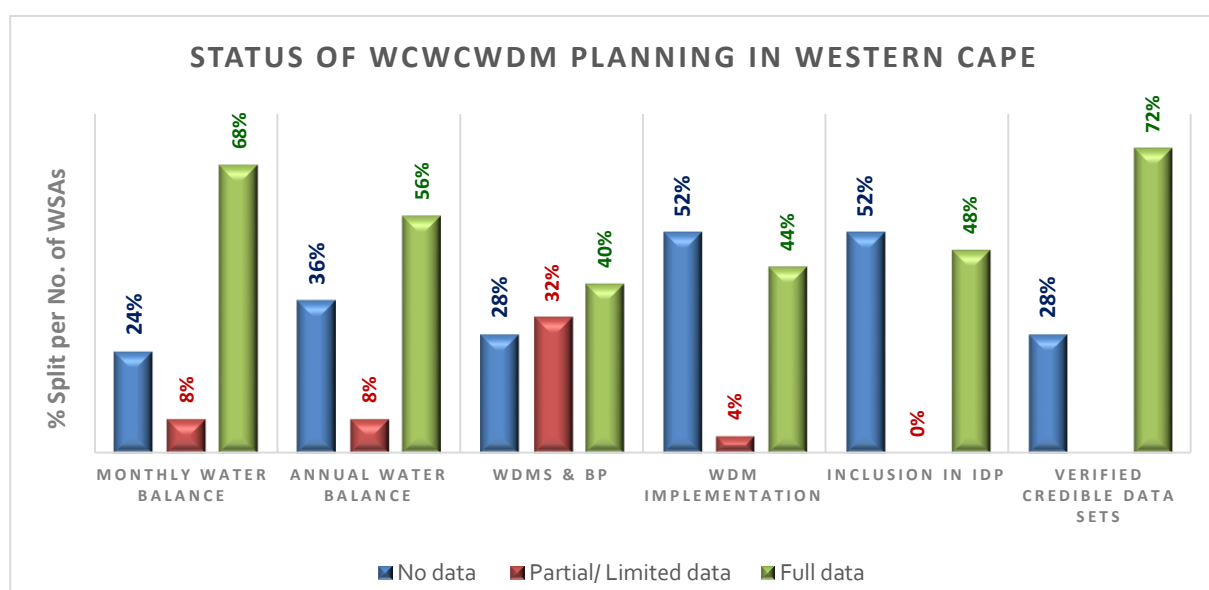
In order to derive maximum benefit from the available data, the DWS has collapsed the various supply systems into 1 integrated system for each municipality. The results are reported accordingly:

Data Status	6.1 - Water Balance		6.2 - WCWDM Strategy and Business Plan and Implementation			6.3 - Compliance and Performance	
	Monthly Water Balance	Annual Water Balance	WCWDM S & BP	WCWDM Implementation	Inclusion in IDP	Verified Data Sets	Credible Data Sets
No data	6 (24%)	9 (36%)	7 (28%)	13 (52%)	13 (52%)	7 (28%)	
Partial data	2 (8%)	2 (8%)	8 (32%)	1 (4%)	0	0	
Full data	17 (68%)	14 (56%)	10 (40%)	11 (44%)	12 (48%)	18 (72%)	
No. of WSAs	25	25	25	25	25	25	

The results shows that 6 to 9 of the 25 integrated systems (24% to 36%) does not have monthly and annual Water Balances in place, and 8% has partial balances in place. The following planning profile is observed:

- 40% of the municipalities have WCWDM strategies and plans in place, with 28% not having any plans in place;
- 44% of municipalities implement WCWDM projects and have budgets and capacity to support implementation;
- 52% of municipalities do not implement any water demand measures, whilst 4% implement some form of demand management;
- 48% of municipalities have their WCWDM plans included in the IDP in detail;
- 52% of municipalities do not have WCWDM projects included in the IDP;
- The No Drop auditors found the credibility of data and information satisfactory at 72% of the municipalities, and not satisfactory for 28% of the auditees.

The following figure shows the submissions made for No Drop assessment as pertaining to WCWDM planning:



4. THE PROVINCIAL WATER BALANCE (KPA 1 AND 2)

A summary of the results from the 18 (of 25) credible data sets is reflected in the following table:

2013 Provincial No Drop Score	81.2%
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Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		2.44%
No Drop Score (2013)		81.2% Good
INPUT DATA	Population	5 382 561
	Households	1 151 869
	Metered Connections	925 757
	Unmetered Connections	6 663
	Length of mains (km)	16 620
	Average System Pressure (m)	46.15
	2014 Water Use Targets (Water Balance Targets)	455.82 million
	System Input Volume (kl/annum)	444.32 million

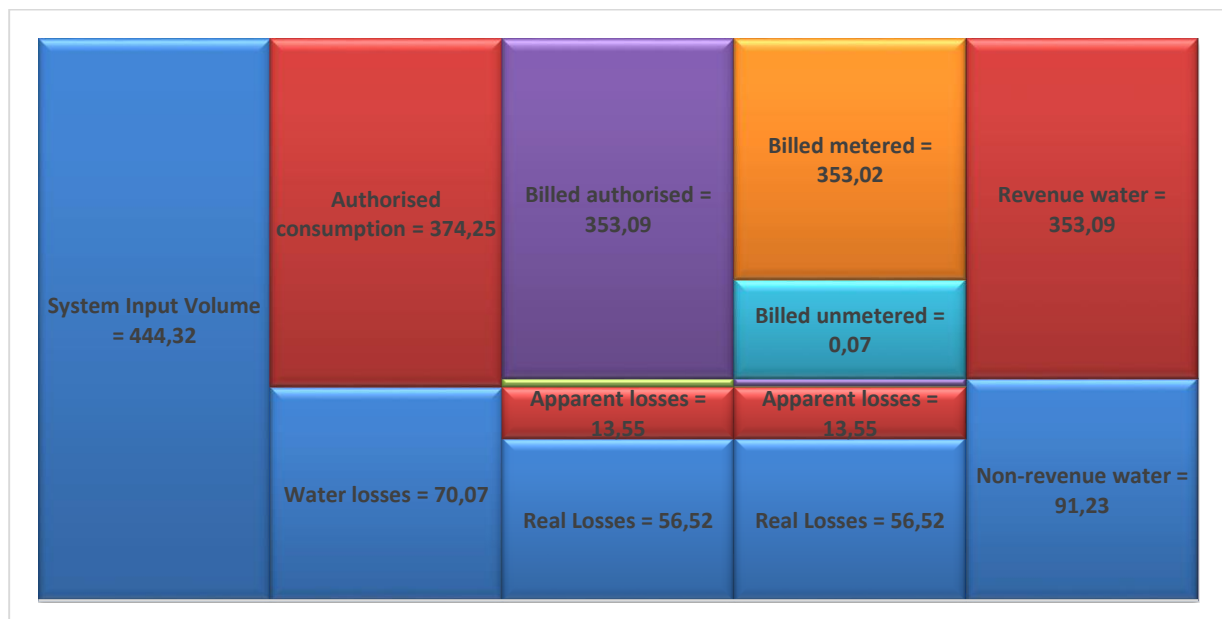
2013 Provincial No Drop Score

81.2%

Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		2.44%
No Drop Score (2013)		81.2% Good
	Billed Metered Authorised Use (kl/annum)	353.02 million
	Billed Unmetered Authorised Use (kl/annum)	0.07 million
	Unbilled Authorised Use (kl/annum)	21.16 million
	Assumed Commercial Losses (%)	19%
BALANCE	Authorised Use – billed & unbilled (kl/annum)	374.25 million
	Water Losses (kl/annum)	70.07 million
	Apparent losses (kl/annum)	13.55 million
	Real Losses (kl/annum)	56.52 million
WATER DATA	Revenue Water (kl/annum)	353.09 million
	Non-Revenue Water (kl/annum)	91.23 million
KPIs	Infrastructure Leakage Index (ILI)	3.21 Good
	Apparent/ Commercial Losses (%)	3.1%
	Non-Revenue Water (%)	21% Average
	Water Use Efficiency (l/cap/day)	226.2 Average
OTHER	Authorised Use (l/cap/day)	190.49
	Real Losses (l/cap/day)	28.77
	% Water Losses	15.97%

The Provincial Water Balance for the 2012/13 audit year shows a total SIV 444.32 million kl/annum of which 374.25 million kl/a (84.2%) is Authorised Consumption and 70.07 million kl/a (15.9%) is Water Losses. The Water Losses is made up of 13.55 million kl/a (19.3%) Apparent Losses and 56.52 million kl/a (80.7%) Real Losses, which result in a **NRW of 91.23 million kl/annum (21%)**.

2012/13 IWA Water Balance (million m³/annum)



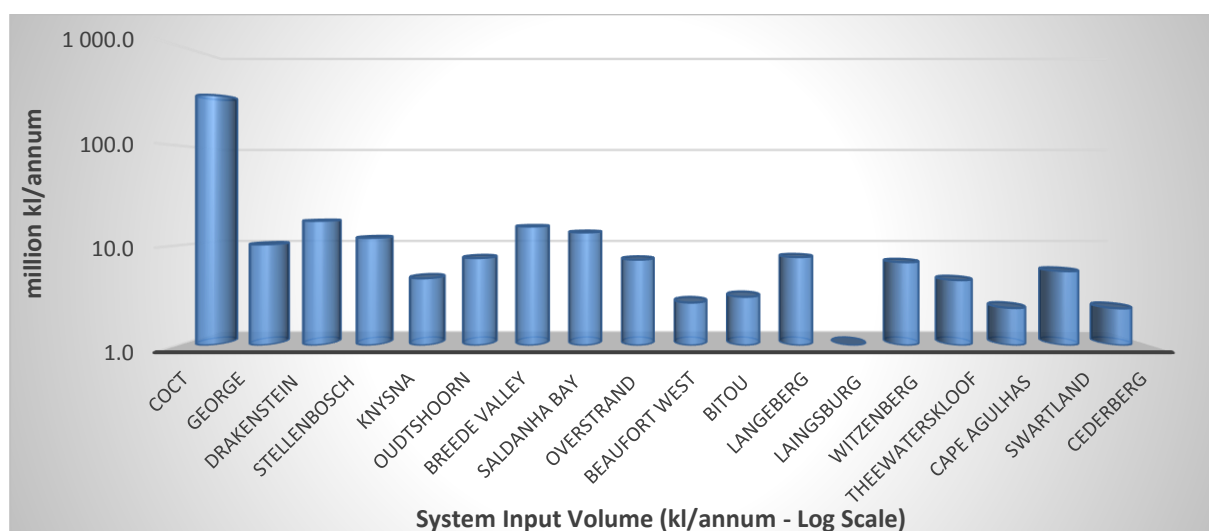
5. COMPLIANCE AND PERFORMANCE (KPA 3)

Audit Methodology

No Drop data was extracted from sub-criteria 6.3 of the Blue/No Drop assessment scorecards and the associated 2012/13 evidence/data. A secondary moderation processes ensured that the results contained in the scorecards were verified against the Water Balance historical trends. Where inconsistency and/or credibility concerns were detected, the ensuing data and results were corrected, supplemented or negated (in cases with limited data sets). Only the verified results are used in this report, and considered under the following Key Performance Indicator (KPI) headings.

5.1 System input volume (kl/a)

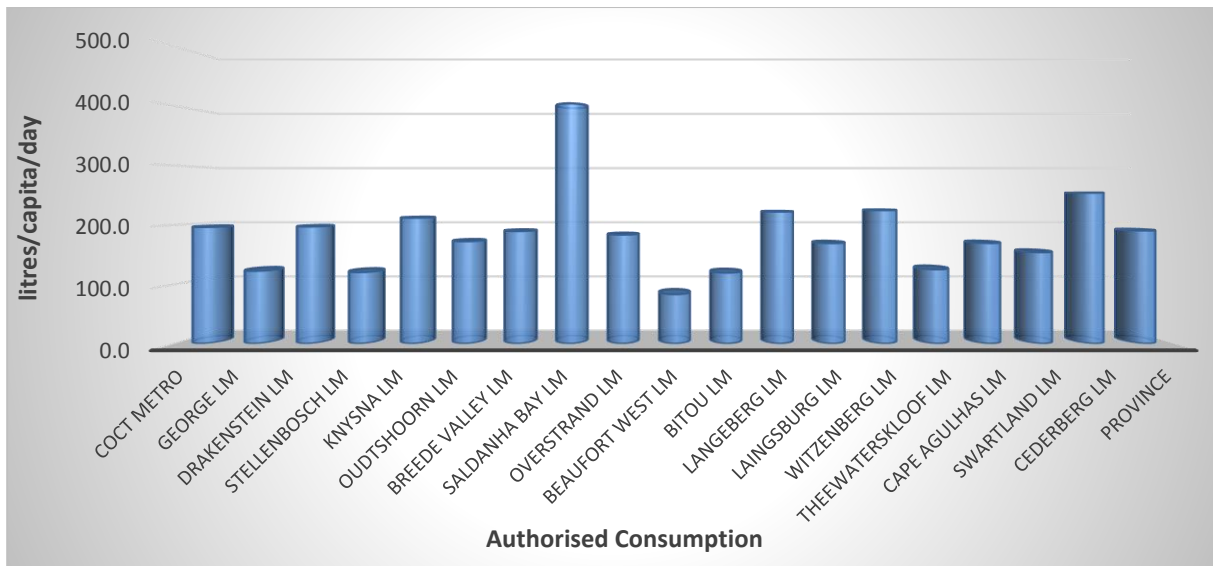
The System Input Volume represents the potable volume input to the water supply system from the water utility's own sources, as measured at the water treatment works (WTW) outlet, as well as any water imported from other sources.



A total consumption of 444.32 million kl/a is recorded for the Western Cape, the one Category A metro accounts for a great proportion of the total consumption, City of Cape Town 72.2% (320.92 million kl/a). The water consumption for the other municipalities are individually and collectively less than that of the one metro, and collectively account for the other 27.8% of the Province's consumption.

5.2 Authorised consumption (l/c/a)

Authorised consumption includes metered/ unmetered and billed/ unbilled consumption and provides an indication of the actual water used by the consumer.



The per capita total authorised water use by the collective consumer in Western Cape is 1881 litres/capita/day, with a weighted average per capita consumption rate of 190 ℓ/c/d. Saldanha Bay LM displays the highest level of authorised consumption at 404 ℓ/c/d, followed by Cederburg LM (254 ℓ/c/d) and Witzenberg LM (225 ℓ/c/d). Authorised consumption is the lowest per capita in Beaufort West LM (83 ℓ/c/d).



A high authorised unit consumption could be an indication of inefficient water use, often as a result of high internal plumbing leakage or paying consumers who do not value the scarcity of water or effective metering and billing systems. A low authorised unit consumption could be an indication of unmetered consumption not included in the water balance or a large number of unauthorised consumption or theft.

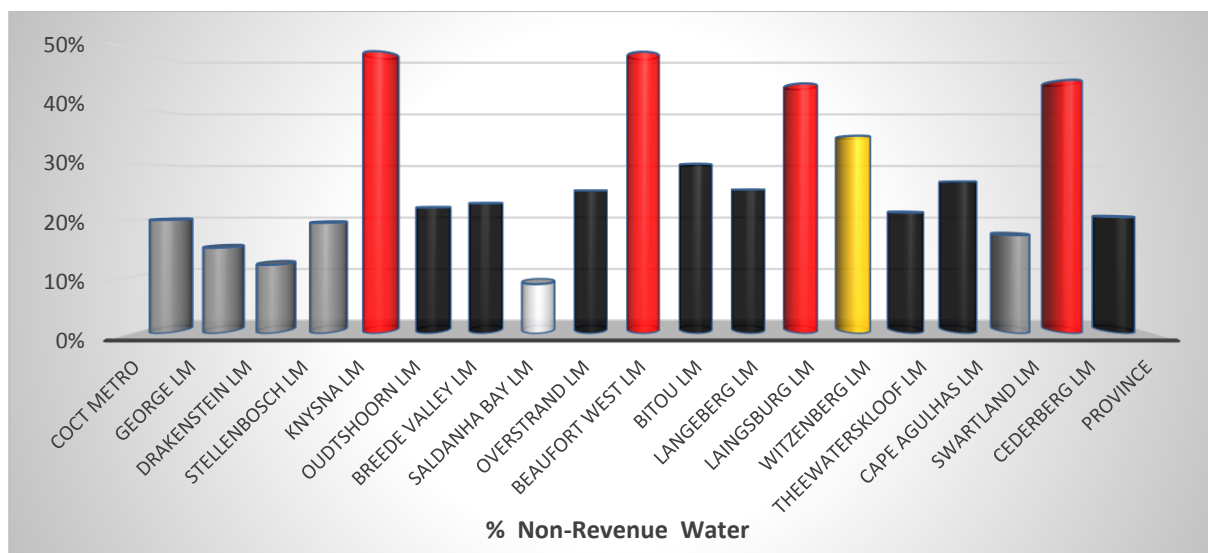
5.3 Non-revenue water (%)

NRW is the volume of water supplied by the water utility but for which it receives no income. It should be noted that all billed water is considered revenue water, irrespective whether it is paid for or not.

No Drop Benchmark: >40% = EXTREMELY POOR ; 30-40% = POOR ; 20-30% = AVERAGE ; 10-20% = GOOD ; <10% = EXCELLENT
Western Cape Weighted Average: 21% = AVERAGE

Color	NRW Range (%)	Category
Red	>40%	Extremely poor
Yellow	30-40%	Poor
Black	20-30%	Average
Grey	10-20%	Good
White	<10%	Excellent

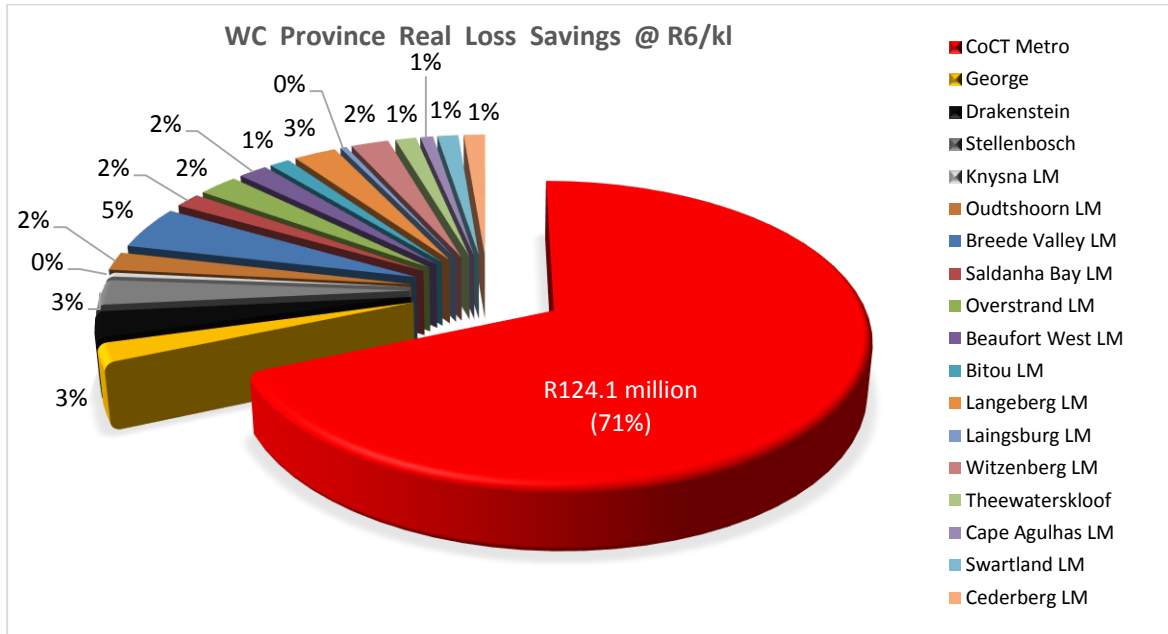
Only five of the 18 municipalities (28%) have NRW in excess of 33%. The weighted average NRW is 21%. The highest NRW values are seen for Knysna LM and Beaufort West LM at 50%, Cederburg LM at 48% and Laingsburg LM at 44%. The graph below as a whole exhibits an average non-revenue water management.



Based on the available water balances, a total volume of 91.23 million kl/annum is lost as NRW which, calculated at a unit cost of R6/kl, amounts to R 547.4 million per annum for the province as a whole. The financial and potential saving, at a fixed unit cost of R6/kl is considered in the following table. By implementing Water Conservation and Demand Management projects, a potential saving of 28.26 million kl can be achieved per annum, which translate to R 169.6 million per year. For a province concerning itself with water conservation and economic growth based on water security, a potential **saving of R 170 million** is worth investing in. This potential saving is calculated from the 18 (72%) usable datasheets, which passed the No Drop quality assurance (credibility) checks. **Savings in excess of R200 million** can be projected if all Western Cape municipalities' water balances are considered and extrapolated.

Municipality Name [WSA]	Munic Category	UARL kl/annum	Current		Target			Rand value (million) @ R6.00/kl		
			CARL kl/annum	ILI	TARL kl/annum	ILI	Savings kl/annum	UARL R million	CARL R million	Savings R million
CoCT Metro	A	15 118 343	41 361 877	2.74	20 680 938	1.37	20 680 938	90.71	248.17	124.09
George LM	B1	805 535	1 233 370	1.53	616 685	0.77	616 685	4.83	7.40	3.70
Drakenstein LM	B1	686 745	1 675 331	2.44	837 666	1.22	837 666	4.12	10.05	5.03
Stellenbosch LM	B1	455 124	1 662 946	3.65	831 473	1.83	831 473	2.73	9.98	4.99
Knysna LM	B2	200 242	270 888	1.35	135 444	0.68	135 444	1.20	1.63	0.81
Oudtshoorn LM	B2	322 878	1 201 686	3.72	600 843	1.86	600 843	1.94	7.21	3.61
Breede Valley LM	B2	557 900	2 811 879	5.04	1 405 940	2.52	1 405 940	3.35	16.87	8.44
Saldanha Bay LM	B2	453 523	939 966	2.07	469 983	1.04	469 983	2.72	5.64	2.82
Overstrand LM	B2	668 289	1 448 465	2.17	724 232	1.08	724 232	4.01	8.69	4.35
Beaufort West LM	B3	155 973	1 062 014	6.81	531 007	3.40	531 007	0.94	6.37	3.19
Bitou LM	B3	293 029	732 456	2.50	366 228	1.25	366 228	1.76	4.39	2.20
Langeberg LM	B3	275 551	1 540 772	5.59	770 386	2.80	770 386	1.65	9.24	4.62
Laingsburg LM	B3	22 112	221 683	10.03	110 842	5.01	110 842	0.13	1.33	0.67
Witzenberg LM	B3	131 797	1 364 918	10.36	682 459	5.18	682 459	0.79	8.19	4.09
Theewaterskloof LM	B3	402 612	758 162	1.88	379 081	0.94	379 081	2.42	4.55	2.27
Cape Agulhas LM	B3	205 780	467 086	2.27	233 543	1.13	233 543	1.23	2.80	1.40

Swartland LM	B3	317 229	757 595	2.39	378 798	1.19	378 798	1.90	4.55	2.27
Cederberg LM	B3	78 522	773 989	9.86	386 994	4.93	386 994	0.47	4.64	2.32
Provincial Totals		17 602 670	56 520 194	3.21	28 260 097	1.61	28 260 097	105.62	339.12	169.56



The acceptable minimum level of leakage or UARL for the available datasets is 17.6 million m³/annum which is valued at R 105.6 million/annum based on R 6.00/kl. The current level of physical leakage or CARL, however, is 56.5 million m³/annum or 3.2 times higher than the acceptable minimum level of leakage. The current level of physical leakage is valued at R 339.1 million/a based on R 6.00/kl. If the CARL could be halved to an ILI 1.6, which is an acceptable level of leakage for developed countries, a saving of 28.3 million m³/annum or R 170 million/annum could be realised.

The R 6.00/kl is considered a realistic bulk water supply tariff for 2013/14, based on the Water Services Tariffs Report for 2012/13 (DWA, 2013). Any escalation in water unit prices above the assumed average cost of water (R6/kl) would result in higher savings potential in future (i.e. >R100 million).

High %NRW could result due to customers not paying for water services, not being connected and billed by the municipality, households connected to the system through illegal connections, customers not receiving bills, incorrect billing based on estimates and difficult to understand for the average customer, and the general lack of co-operation between the finance and technical departments of the municipality.



The most common causes for high physical water losses are

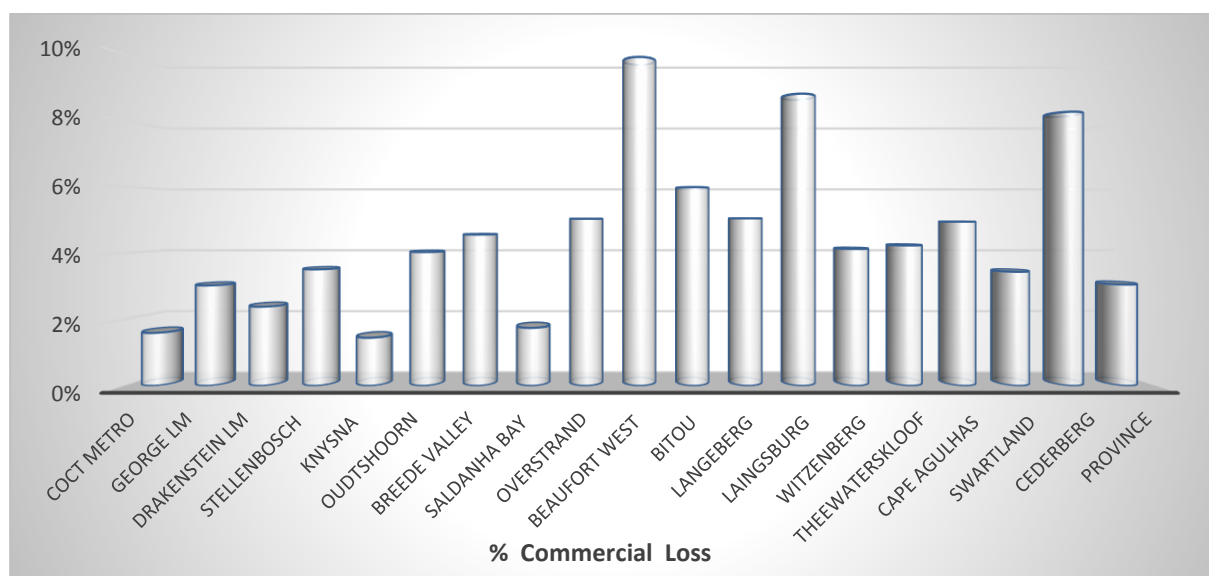
- leakage on transmission and/or distribution mains,
- leakage on service connections up to point of customer metering,
- leakage and overflows at utility's storage tanks, and

The most common causes for commercial losses are:

- unbilled unmetered consumption,
- unauthorised consumption,
- customer metering inaccuracies
- high internal plumbing leakage on private properties, and
- inefficient garden watering and household water use.

5.4 Commercial loss (%)

The commercial loss, as % of the SIV, is made up from the unauthorised consumption (theft or illegal use), plus all technical and administrative inaccuracies associated with customer metering.



The weighted average commercial loss for the Province, as % of the SIV, is 3.1%. The graph below shows commercial losses in the order of 1-10%. Most WSA's find it difficult to calculate commercial losses, as its input parameters is not easy to measure illegal connections, meter accuracy and transfer errors. As result, most WSAs accept industry default values for commercial losses and there is almost no quantification of the actual percentage. A default value of 20% is used as the norm, unless a municipality can motivate a different value. The reported commercial losses are not considered accurate and seem unusually low. The commercial losses are expected to increase once these parameters are better quantified.



High commercial losses can be a result of high unbilled and unmetered consumption, high unauthorised consumption, and customer metering inaccuracies.

5.5 Physical water loss (ILI unit)

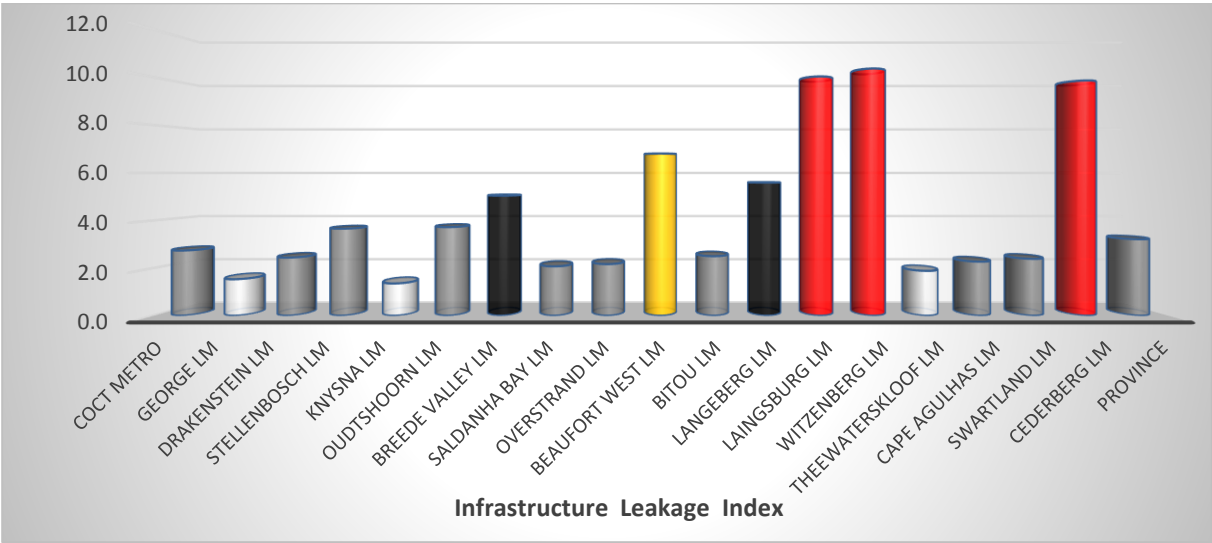
The Infrastructure Leakage Index (ILI) is the preferred real water loss indicator of the IWA and used in the scorecard to assess real losses. The ILI provides an indication of the current physical losses versus the expected physical losses. For example, an ILI of 3 means that the current leakage in the system is 3 times the expected minimum leakage.

● No Drop Benchmark: >8 = EXTREMELY INEFFICIENT ; 6-8 = POOR ; 4-6 = AVERAGE ; 2-4 = GOOD ; <2 = EXCELLENT
 ● Western Cape Weighted Average: 3.21 = GOOD

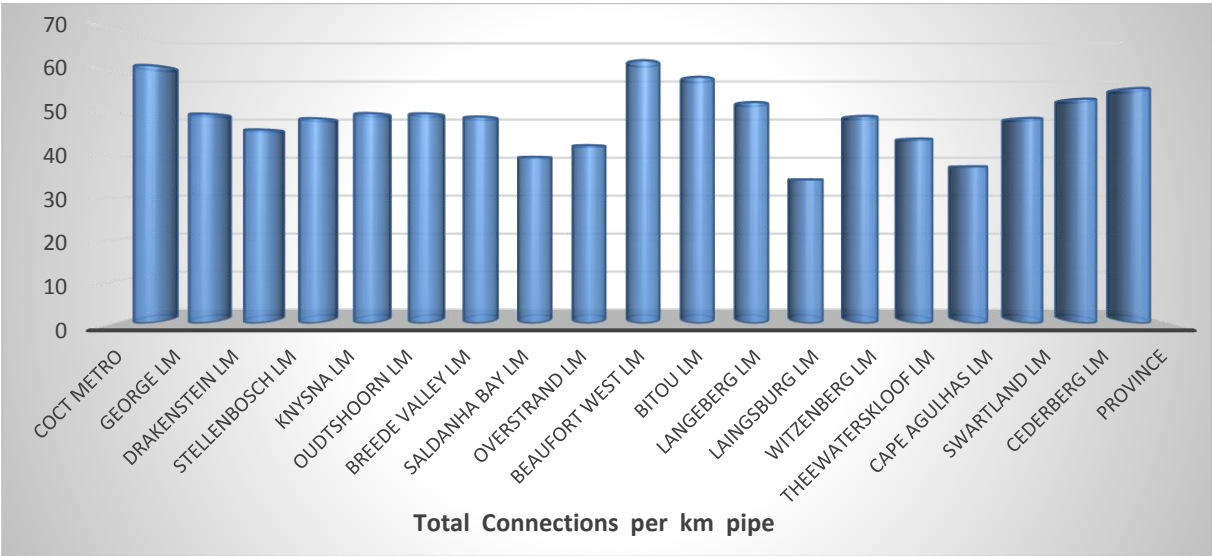
ILI performance categories

	>8	Extremely inefficient
	6-8	Poor leakage record
	4-6	Average
	2-4	Good
	<2	Excellent water loss management

The weighted average ILI is 3.21. In the graph below, Knysna LM has the lowest ILI of 1.35, followed by George LM (1.53) and Theewaterskloof (1.88). The highest ILI can be seen for Witzenberg LM at 10.36, Laingsburg LM at 10.03 and Cederburg LM at 9.86 which exhibit extremely poor inefficient water use and leakage record.



When considering that the length of mains and number of connections influences the ILI calculation, the following comparison can be made:

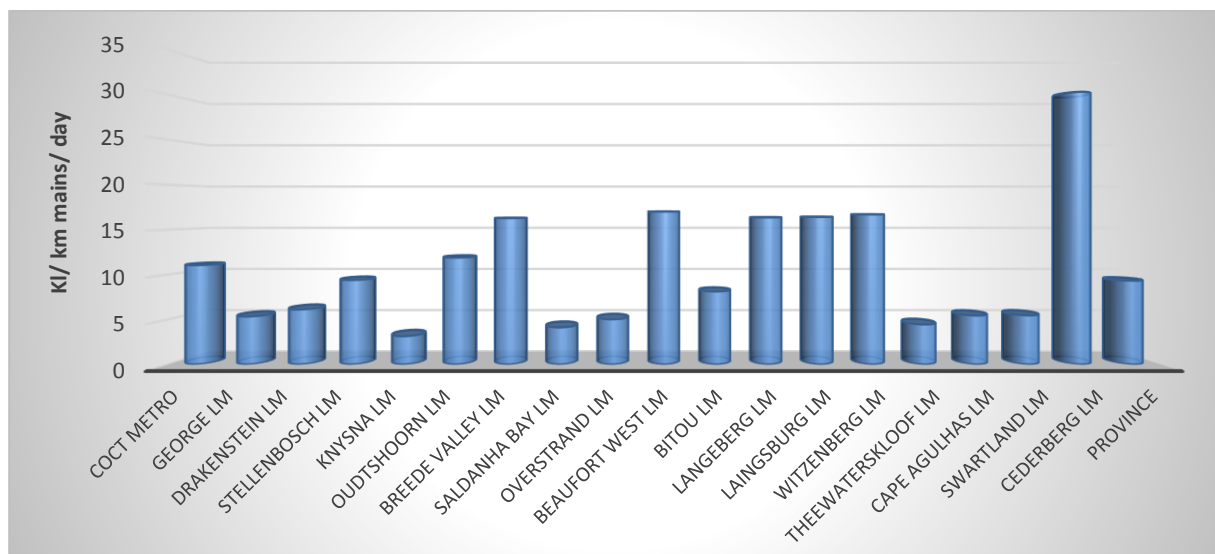
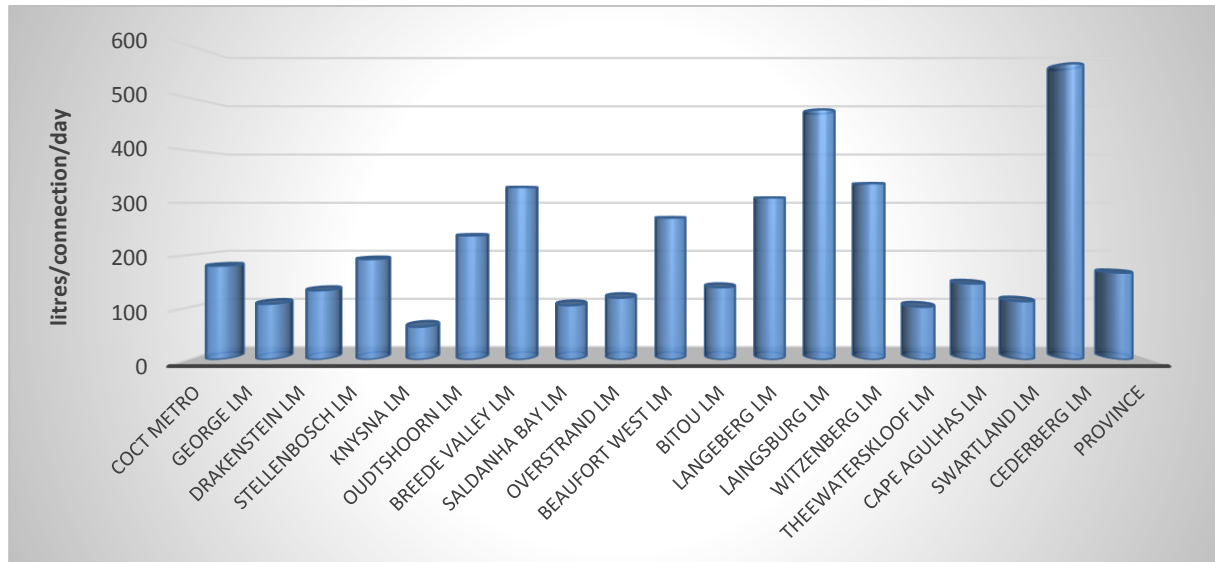


Connection density per length of pipeline is not a performance parameter, it does provide insight into the set-up of connections and meters on the existing water supply pipeline. The density of

connections per km mains varies from 63 connections per km in Beaufort West LM to 35 connections per km mains in Laingsburg LM, with an average of 49 connections per km.

Some of the metros have raised the validity of the ILI as an indicator and the Department will investigate this further.

Other real water loss indicators include litres/connection/day and m³ or kl/km mains/day.



The 1st graph shows that the Cedberg LM, Laingsburg LM and Witzenberg LM have the highest losses per connection per day (565 to 338 l/connection/d), whereas Knysna LM and Theewaterskloof LM show very low losses per connection. The 2nd graph also shows that much higher real loss per km mains for the Cedberg LM and lower real loss per km mains for Knysna LM. The low values for some of the municipalities will be confirmed during the next audit.



High physical losses could indicate leakages on the transmission and/or distribution mains, leakage on service connections up to point of customer metering, leakage and overflows at utility’s storage tanks.

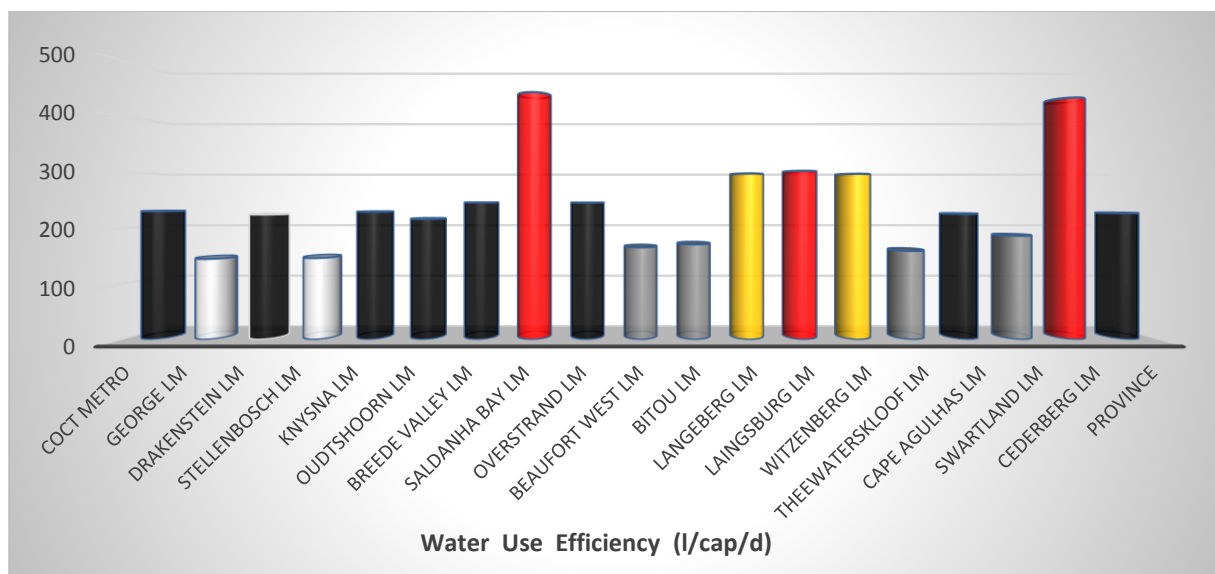
5.6 Water Use Efficiency (ℓ/c/d)

Litres per capita per day provide an indication of the gross volume of water used per capita (person) per day. Although the calculation is based on the total system input volume (m³/year) and not just the domestic component, it does provide a useful indicator.

💧 *No Drop Benchmark:* >300 ℓ/c/d = EXTREMELY HIGH ; 250-300 ℓ/c/d = POOR ; 200-250 ℓ/c/d = AVERAGE ; 150-200 ℓ/c/d = GOOD ; <150 ℓ/c/d = EXCELLENT

💧 *Western Cape Weighted Average:* 226 ℓ/c/d = AVE

	>300	Extremely high per capita water use
	250-300	Poor
	200-250	Average
	150-200	Good
	<150	Excellent per capita water use



Water use efficiency is typically one of the key performance indicators and reported against at national level. The weighted average WUE is 226 ℓ/c/d. The average consumption is above the international benchmark of 180 ℓ/c/d and the municipalities must continue to target an average consumption of below 200 ℓ/c/d.

The results indicate that Saldanha Bay LM has the highest WUE of 443 followed by Cederburg LM with 433 ℓ/c/d. Only five of the 18 municipalities are below the benchmark of 180 ℓ/c/d and include the George LM, Stellenbosch LM, Beaufort West LM and Bitou LM all exhibiting from good to excellent per capita water use management.

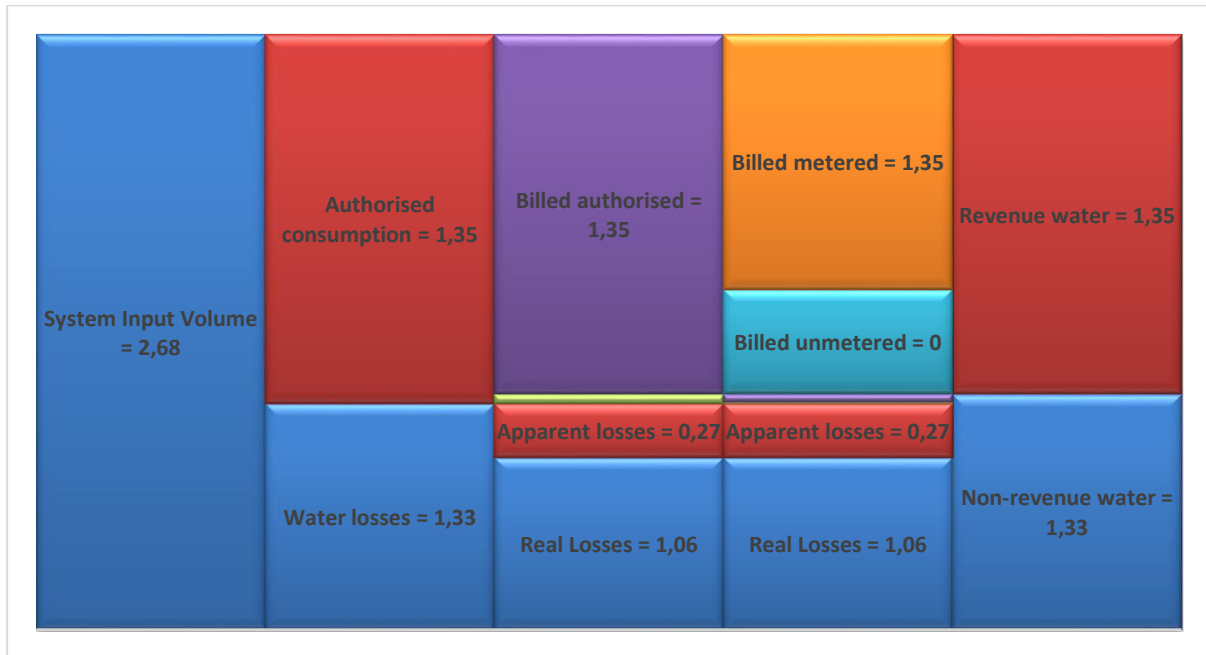


A high use of water per capita could be an indication of inefficient water use due to high internal plumbing leakages or paying consumers who do not value the scarcity of water. Unmetered as well as unauthorised consumption needs to be addressed to improve this status.

Beaufort West Local Municipality

2013 Municipal No Drop Score		85.67%
Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		2.57%
No Drop Score (2013)		85.67% Good
INPUT DATA	Population	44 482
	Households	10 719
	Metered Connections	10 719
	Unmetered Connections	0
	Length of mains (km)	171
	Average System Pressure (m)	37
	2014 Water Use Targets (Water Balance Targets)	2.96 million
	System Input Volume (kl/annum)	2.68 million
	Billed Metered Authorised Use (kl/annum)	1.35 million
	Billed Unmetered Authorised Use (kl/annum)	0
	Unbilled Authorised Use (kl/annum)	0
	Assumed Commercial Losses (%)	20%
	WATER BALANCE DATA	Authorised Use – billed & unbilled (kl/annum)
Water Losses (kl/annum)		1.33 million
Apparent losses (kl/annum)		0.27 million
Real Losses (kl/annum)		1.06 million
Revenue Water (kl/annum)		1.35 million
Non-Revenue Water (kl/annum)		1.33 million
KPIs	Infrastructure Leakage Index (ILI)	6.81 Poor
	Apparent/ Commercial Losses (%)	9.91%
	Non-Revenue Water (%)	50% Extremely poor
	Water Use Efficiency (l/cap/day)	165.1 Good
OTHER	Authorised Use (l/cap/day)	83.29
	Real Losses (l/cap/day)	65.41
	% Water Losses	49.5%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The No Drop score 85.7% indicates that Beaufort West municipality have a good knowledge base of its water losses and have the required systems, processes and plans in place to implement WCWDM. The No Drop score also suggest that room for further improvement – to excellence status – is possible

Monthly and annual water balances were submitted and linked to the assessment period in question. The historic water balance trend data was used to verify and adjust the data set accordingly. A WCWDM Strategy is in place and components listed under the Strategy and Business Plan is included in the IDP. WCWDM implementation includes a pressure reduction programme funded by MIG for R2.2 million implemented over 2 financial years, and replacement of pre-paid meters funded by ACIP for R1 million with multi-year implementation.

The Regulator trust that the No Drop findings will assist to improve on the NRW and ILI performance going forward towards the next No Drop assessment cycle.

No Drop Findings

- The ILI of 6.81 is demonstrating poor water loss management.
- The water use efficiency performance is good at 165.1 l/c/d but some improvement may be possible subject to economic benefit.
- The NRW (50%) is demonstrating extremely poor non-revenue management.

Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Bergrivier Local Municipality

2013 Municipal No Drop Score		7.5%
Key Performance Area	Status and Performance	
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)	0.23%	
No Drop Score (2013)	7.5% Critical	

Regulatory Impression

Limited evidence was provided by Bergrivier municipality during the No Drop assessment. Also, credibility of data could not be confirmed during the audit process. No 2012/13 IWA water balance diagram reflected.

The Regulator impresses on the municipality that the first and most important step to ensure water security is to know your status. Bergrivier is urged to establish its Water Balance as a matter of priority.

No Drop findings

- Monthly water balances in place but not an annual water balance
- No WCWDMS and BP in place, no evidence of WCWDM implementation
- Compliance and performance evidence could not be provided
- Insufficient evidence to award a bonus.

Sustainability Pathway

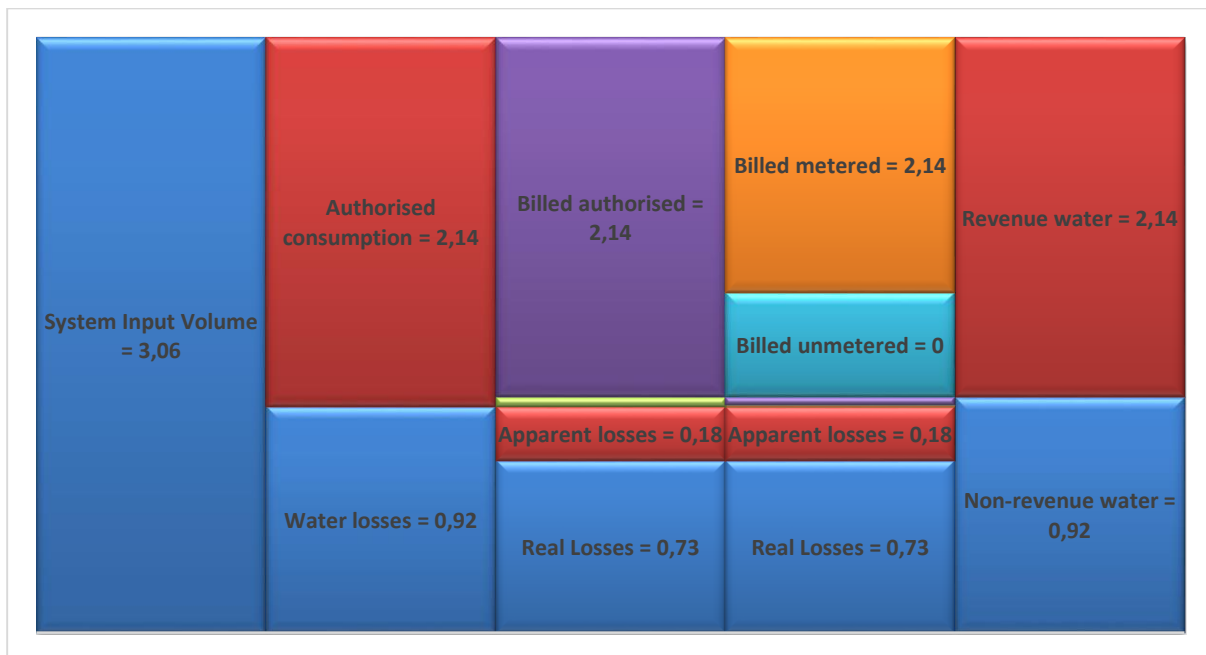
The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Bitou Local Municipality

2013 Municipal No Drop Score	72.5%
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Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		2.18%
No Drop Score (2013)		72.5% Average
INPUT DATA	Population	49 164
	Households	14 513
	Metered Connections	14 513
	Unmetered Connections	0
	Length of mains (km)	247
	Average System Pressure (m)	50
	2014 Water Use Targets (Water Balance Targets)	2.94 million
	System Input Volume (kl/annum)	3.06 million
	Billed Metered Authorised Use (kl/annum)	2.14 million
	Billed Unmetered Authorised Use (kl/annum)	0
	Unbilled Authorised Use (kl/annum)	0
	Assumed Commercial Losses (%)	20%
WATER BALANCE DATA	Authorised Use – billed & unbilled (kl/annum)	2.14 million
	Water Losses (kl/annum)	0.92 million
	Apparent losses (kl/annum)	0.18 million
	Real Losses (kl/annum)	0.73 million
	Revenue Water (kl/annum)	2.14 million
	Non-Revenue Water (kl/annum)	0.92 million
KPIs	Infrastructure Leakage Index (ILI)	2.50 Good
	Apparent/ Commercial Losses (%)	5.98%
	Non-Revenue Water (%)	30% Poor
	Water Use Efficiency (l/cap/day)	170.5 Good
OTHER	Authorised Use (l/cap/day)	119.49
	Real Losses (l/cap/day)	40.82
	% Water Losses	29.9%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The No Drop score 72.5% indicates that Bitou municipality have an average knowledge base of its water losses and have some systems, processes and plans in place to implement WCWDM. The No Drop score also suggest that room for further improvement – to ‘good’ status – is possible.

Monthly and annual water balances were submitted and linked to the assessment period in question. The historic water balance trend data was used to verify and adjust the data set accordingly. A WCWDM Strategy is in place and components listed under the Strategy and Business Plan is included in the IDP.

The Regulator trust that the No Drop findings will assist to improve on the NRW performance going forward towards the next No Drop assessment cycle.

No Drop Findings

- No proof of WCWDM implementation was provided for.
- The ILI of 2.50 is demonstrating good water loss management but some improvement may be possible subject to economic benefit.
- The water use efficiency performance is good at 170.5 l/c/d but some improvement may be possible subject to economic benefit.
- The NRW (30%) is demonstrating poor non-revenue management.

Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Breede Valley Local Municipality

2013 Municipal No Drop Score

61.14%

Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		1.83%
No Drop Score (2013)		61.14% Average
INPUT DATA	Population	172 398
	Households	43 438
	Metered Connections	23 324
	Unmetered Connections	0
	Length of mains (km)	473
	Average System Pressure (m)	56
	2014 Water Use Targets (Water Balance Targets)	16.04 million
	System Input Volume (kl/annum)	15.44 million
	Billed Metered Authorised Use (kl/annum)	11.89 million
	Billed Unmetered Authorised Use (kl/annum)	0
	Unbilled Authorised Use (kl/annum)	0.31 million
	Assumed Commercial Losses (%)	20%
WATER BALANCE DATA	Authorised Use – billed & unbilled (kl/annum)	11.92 million
	Water Losses (kl/annum)	3.51 million
	Apparent losses (kl/annum)	0.70 million
	Real Losses (kl/annum)	2.81 million
	Revenue Water (kl/annum)	11.89 million
	Non-Revenue Water (kl/annum)	3.55 million
KPIs	Infrastructure Leakage Index (ILI)	5.04 Average
	Apparent/ Commercial Losses (%)	4.55%
	Non-Revenue Water (%)	23% Average
	Water Use Efficiency (l/cap/day)	245.4 Average
OTHER	Authorised Use (l/cap/day)	189.51
	Real Losses (l/cap/day)	44.69
	% Water Losses	22.8%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The No Drop score 61.1% indicates that Breede Valley municipality have a good knowledge base of its water losses and have the required systems, processes and plans in place to implement WCWDM. The No Drop score also suggest that room for further improvement – to excellence status – is possible.

Monthly and annual water balances were submitted and linked to the assessment period in question. The historic water balance trend data was used to verify and adjust the data set accordingly. A WCWDM Profile is in place and is considered as a good start to building up a WCWDM Strategy and BP. Regrettably, components listed under the Profile was not included in the IDP.

The Regulator trust that the No Drop findings will assist to improve on the WUE, NRW and ILI performance going forward towards the next No Drop assessment cycle.

No Drop Findings

- WCWDM Profile in place which was considered as a good start to building up a WCWDM Strategy and BP.
- WCWDM not featuring prominently in the IDP.
- No evidence of implementation provided.
- The ILI of 5.04 is demonstrating average water loss management with potential for marked improvement.
- The water use efficiency performance is average at 245.4 l/c/d with potential for marked improvement.
- The NRW (23%) is demonstrating average non-revenue management with potential for marked improvement.

Sustainability Pathway

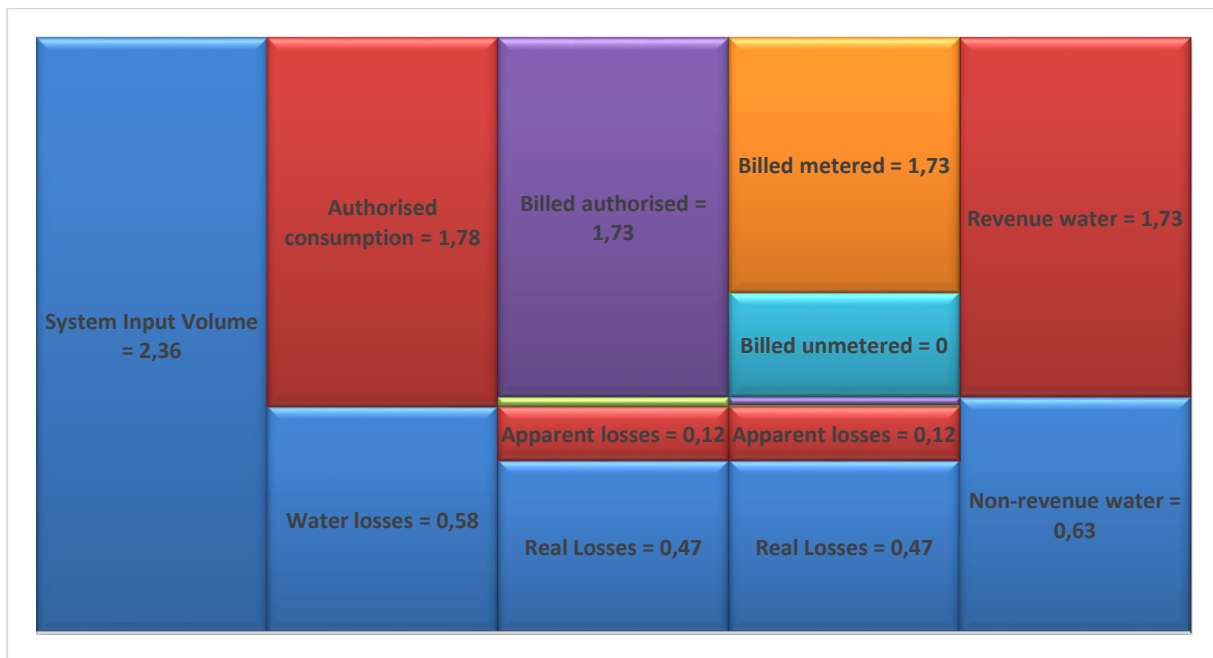
The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Cape Agulhas Local Municipality

2013 Municipal No Drop Score	63.23%
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Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		1.90%
No Drop Score (2013)		63.23% Average
INPUT DATA	Population	28 786
	Households	8 807
	Metered Connections	8 807
	Unmetered Connections	0
	Length of mains (km)	235
	Average System Pressure (m)	50
	2014 Water Use Targets (Water Balance Targets)	2.21 million
	System Input Volume (kl/annum)	2.36 million
	Billed Metered Authorised Use (kl/annum)	1.73 million
	Billed Unmetered Authorised Use (kl/annum)	0
	Unbilled Authorised Use (kl/annum)	0.50 million
	Assumed Commercial Losses (%)	20%
WATER DATA	Authorised Use – billed & unbilled (kl/annum)	1.78 million
	Water Losses (kl/annum)	0.58 million
	Apparent losses (kl/annum)	0.12 million
	Real Losses (kl/annum)	0.47 million
	Revenue Water (kl/annum)	1.73 million
	Non-Revenue Water (kl/annum)	0.63 million
KPIs	Infrastructure Leakage Index (ILI)	2.27 Good
	Apparent/ Commercial Losses (%)	4.94%
	Non-Revenue Water (%)	27% Average
	Water Use Efficiency (l/cap/day)	224.9 Average
OTHER	Authorised Use (l/cap/day)	169.35
	Real Losses (l/cap/day)	44.46
	% Water Losses	24.7%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The No Drop score 63.2% indicates that Cape Agulhas municipality have an average knowledge base of its water losses and have some systems, processes and plans in place to implement WCWDM.

Monthly and annual water balances were submitted and linked to the assessment period in question. The historic water balance trend data was used to verify and adjust the data set accordingly. No WCWDM Strategy is in place and WCWDM does not feature prominently in the IDP.

The Regulator trust that the No Drop findings will assist to improve on the WUE, NRW and ILI performance going forward towards the next No Drop assessment cycle.

No Drop Findings

- No WCWDM Strategy in place.
- Components of WCWDM is not included in the IDP.
- No WCWDM implementation is taking place.
- The ILI of 2.27 is demonstrating good water loss management but some improvement may be possible subject to economic benefit.
- The water use efficiency performance is average at 224.9 l/c/d with potential for marked improvement.
- The NRW (27%) is demonstrating average non-revenue management with potential for marked improvement.

Sustainability Pathway

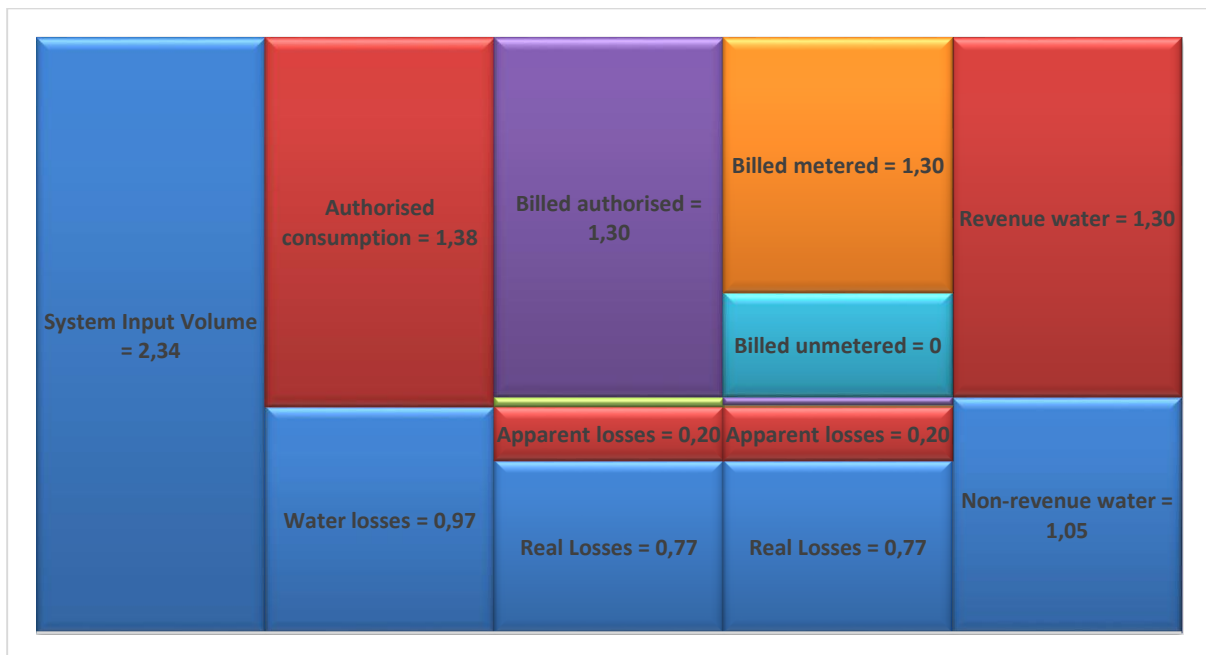
The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Cederberg Local Municipality

2013 Municipal No Drop Score	40.97%
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Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		1.23%
No Drop Score (2013)		40.97% Very poor
INPUT DATA	Population	14 823
	Households	4 282
	Metered Connections	3 750
	Unmetered Connections	0
	Length of mains (km)	70
	Average System Pressure (m)	51
	2014 Water Use Targets (Water Balance Targets)	2.68 million
	System Input Volume (kl/annum)	2.34 million
	Billed Metered Authorised Use (kl/annum)	1.30 million
	Billed Unmetered Authorised Use (kl/annum)	0
	Unbilled Authorised Use (kl/annum)	0.08 million
	Assumed Commercial Losses (%)	20%
WATER BALANCE DATA	Authorised Use – billed & unbilled (kl/annum)	1.38 million
	Water Losses (kl/annum)	0.97 million
	Apparent losses (kl/annum)	0.20 million
	Real Losses (kl/annum)	0.77 million
	Revenue Water (kl/annum)	1.30 million
	Non-Revenue Water (kl/annum)	1.05 million
KPIs	Infrastructure Leakage Index (ILI)	9.86 Extremely poor
	Apparent/ Commercial Losses (%)	8.26%
	Non-Revenue Water (%)	45% Extremely poor
	Water Use Efficiency (l/cap/day)	433.2 Extremely poor
OTHER	Authorised Use (l/cap/day)	254.34
	Real Losses (l/cap/day)	143.06
	% Water Losses	41.3%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The No Drop score of 41% indicates that Cederberg municipality does not have a good knowledge base in place to manage and reduce water losses and non-revenue water.

It is however, encouraging to note that monthly and annual water balances are in place and linked to the assessment period in question. The historic water balance trend data was used to verify and adjust the data set accordingly. Sections of a WCWDM Strategy has been completed and need to be developed further. This is however a good starting point.

The Regulator trust that the No Drop findings will assist to improve on the undesirable current status of WUE, NRW and ILI performance. The Department will follow the municipality's progress with interest, moving forward towards the next No Drop assessment cycle.

No Drop Findings

- Only sections of a WCWDM Strategy in place comprising of a cover page, water demand from various institutions, water demand projections and potential water savings. A Council resolution was provided on the approval and funding of the Strategy.
- Components listed under the WCWDM Strategy are not clear in terms of its inclusion in the IDP.
- No WCWDM implementation is taking place.
- The ILI of 9.86 is demonstrating poor water loss management.
- The water use efficiency performance is poor at 433.2 l/c/d.
- The NRW (45%) is demonstrating poor non-revenue management.

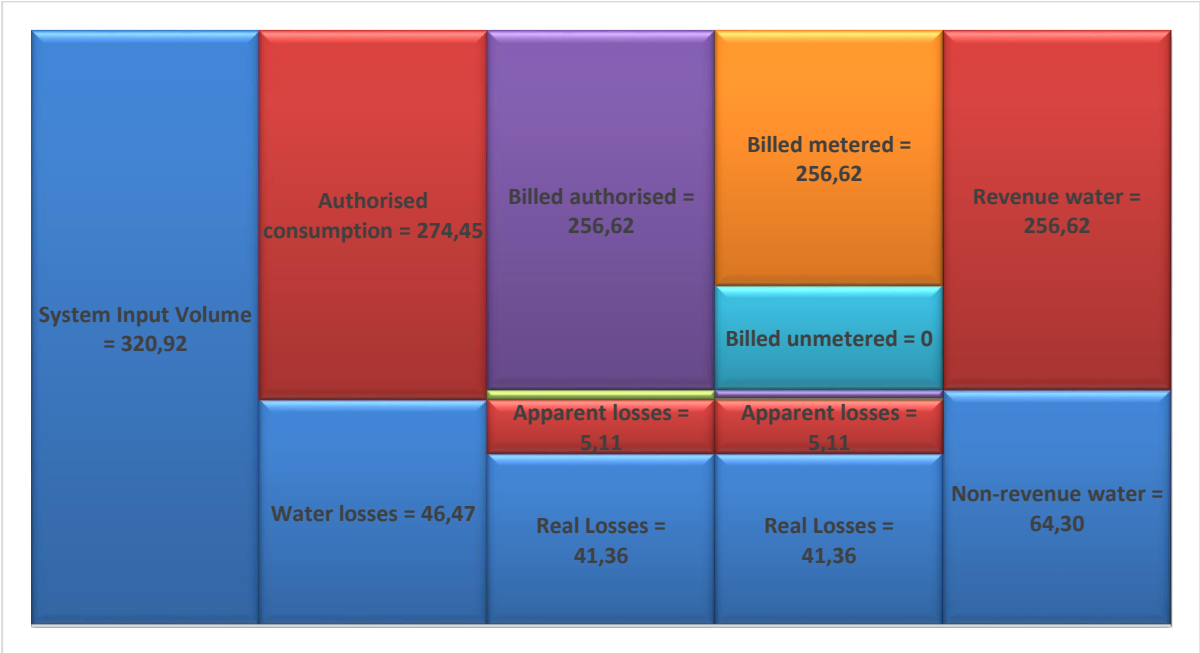
Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

City of Cape Town Metro

2013 Municipal No Drop Score		95%
Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		2.85%
No Drop Score (2013)		95% Excellent
INPUT DATA	Population	382 9193
	Households	778 160
	Metered Connections	626 932
	Unmetered Connections	5 064
	Length of mains (km)	10 263
	Average System Pressure (m)	60
	2014 Water Use Targets (Water Balance Targets)	314.29 million
	System Input Volume (kl/annum)	320.92 million
	Billed Metered Authorised Use (kl/annum)	256.62 million
	Billed Unmetered Authorised Use (kl/annum)	0
	Unbilled Authorised Use (kl/annum)	17.82 million
	Assumed Commercial Losses (%)	11%
WATER BALANCE DATA	Authorised Use – billed & unbilled (kl/annum)	274.45 million
	Water Losses (kl/annum)	46.47 million
	Apparent losses (kl/annum)	5.11 million
	Real Losses (kl/annum)	41.36 million
	Revenue Water (kl/annum)	256.62 million
KPIs	Non-Revenue Water (kl/annum)	64.30 million
	Infrastructure Leakage Index (ILI)	2.74 Good
	Apparent/ Commercial Losses (%)	1.59%
	Non-Revenue Water (%)	20% Good
OTHER	Water Use Efficiency (l/cap/day)	229.6 Average
	Authorised Use (l/cap/day)	196.36
	Real Losses (l/cap/day)	29.59
	% Water Losses	14.5%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The No Drop score of 95% indicates that the City has an excellent knowledge of its status, and has the required processes, systems and plans in place to manage water losses and non-revenue water.

Monthly and annual water balances are in place and were well presented for the assessment period in question. The historic water balance trend data was used to verify and adjust the data set accordingly. A comprehensive WCWDM Strategy is in place and reflects in the IDP with the necessary prominence. Well done.

WCWDM implementation takes place on an ongoing basis, and projects for the 2012/13 year included pressure management, pipe replacement, reuse, and metering are the main initiatives. Movement against project timelines was shown including budget and responsible persons.

The Regulator trusts that the No Drop findings will assist to move all performance parameters into 'excellent' status. The City is also referred to the 'No Drop Metro Report 2015' for additional regulatory comment. The city of Cape Town is congratulated for presenting its evidence with the usual thoroughness that has become the norm over the past years of Drop assessments.

No Drop Findings

- The ILI of 2.74 is demonstrating good water loss management but some improvement may be possible subject to economic benefit.
- The water use efficiency performance is average at 229.6 l/c/d with potential for marked improvement.
- The NRW (20%) is demonstrating good non-revenue management but some improvement may be possible subject to economic benefit.

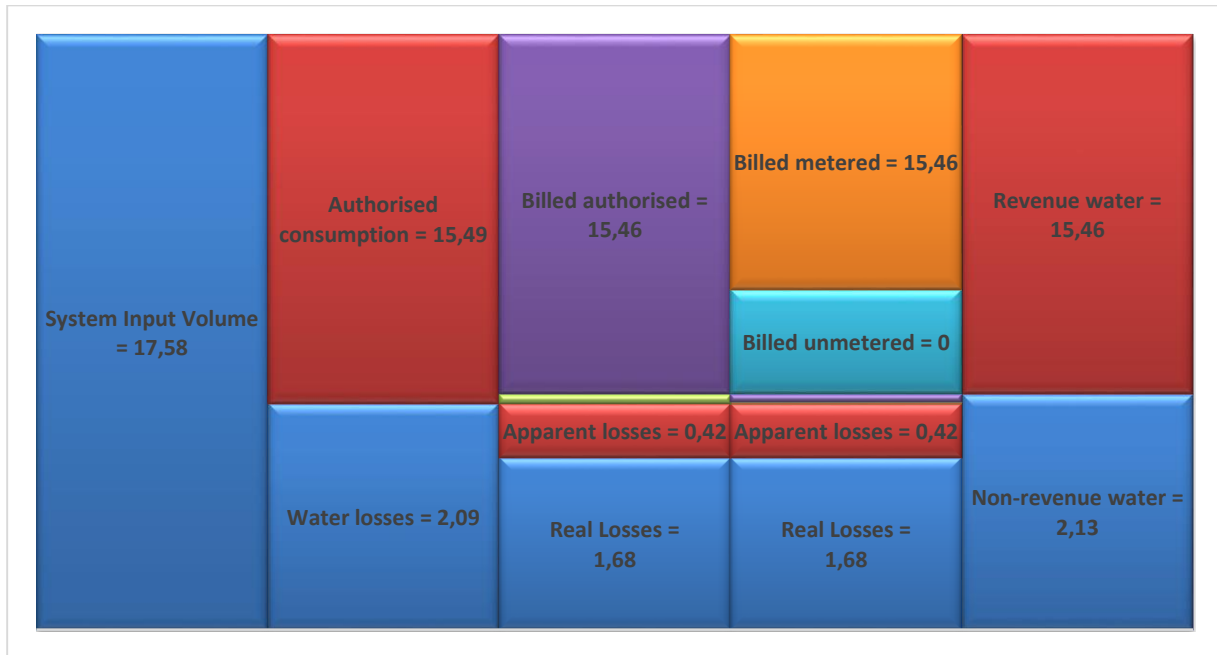
Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Drakenstein Local Municipality

2013 Municipal No Drop Score		95.22%
Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		2.86%
No Drop Score (2013)		95.22% Excellent
INPUT DATA	Population	215 187
	Households	52 460
	Metered Connections	34 527
	Unmetered Connections	174
	Length of mains (km)	750
	Average System Pressure (m)	46
	2014 Water Use Targets (Water Balance Targets)	19.23 million
	System Input Volume (kl/annum)	17.58 million
	Billed Metered Authorised Use (kl/annum)	15.46 million
	Billed Unmetered Authorised Use (kl/annum)	0
	Unbilled Authorised Use (kl/annum)	0.04 million
	Assumed Commercial Losses (%)	20%
WATER BALANCE DATA	Authorised Use – billed & unbilled (kl/annum)	15.49 million
	Water Losses (kl/annum)	2.09 million
	Apparent losses (kl/annum)	0.42 million
	Real Losses (kl/annum)	1.68 million
	Revenue Water (kl/annum)	15.46 million
	Non-Revenue Water (kl/annum)	2.13 million
KPIs	Infrastructure Leakage Index (ILI)	2.44 Good
	Apparent/ Commercial Losses (%)	2.38%
	Non-Revenue Water (%)	12% Good
	Water Use Efficiency (l/cap/day)	223.9 Good
OTHER	Authorised Use (l/cap/day)	197.22
	Real Losses (l/cap/day)	21.33
	% Water Losses	11.9%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The No Drop score of 95.2% indicates that Drakenstein has an excellent knowledge of its status, and has the required processes, systems and plans in place to manage water losses and non-revenue water.

Monthly and annual water balances are in place and were well presented for the assessment period in question. The historic water balance trend data was used to verify and adjust the data set accordingly. A WCWDM Strategy is in place and reflects in the IDP with the necessary prominence. Well done. WCWDM implementation was provided via the Water Services Audit Report progress reports on the WSAs performance.

The Regulator trusts that the No Drop findings will assist to move all performance parameters from 'good' into 'excellent' status. Drakenstein is congratulated for presenting its evidence with the usual diligence and preparation.

No Drop Findings

- The ILI of 2.44 is demonstrating good water loss management but some improvement may be possible subject to economic benefit.
- The water use efficiency performance is good at 223.9 l/c/d but some improvement may be possible subject to economic benefit.
- The NRW (12%) is demonstrating good non-revenue management but some improvement may be possible subject to economic benefit.

Sustainability Pathway

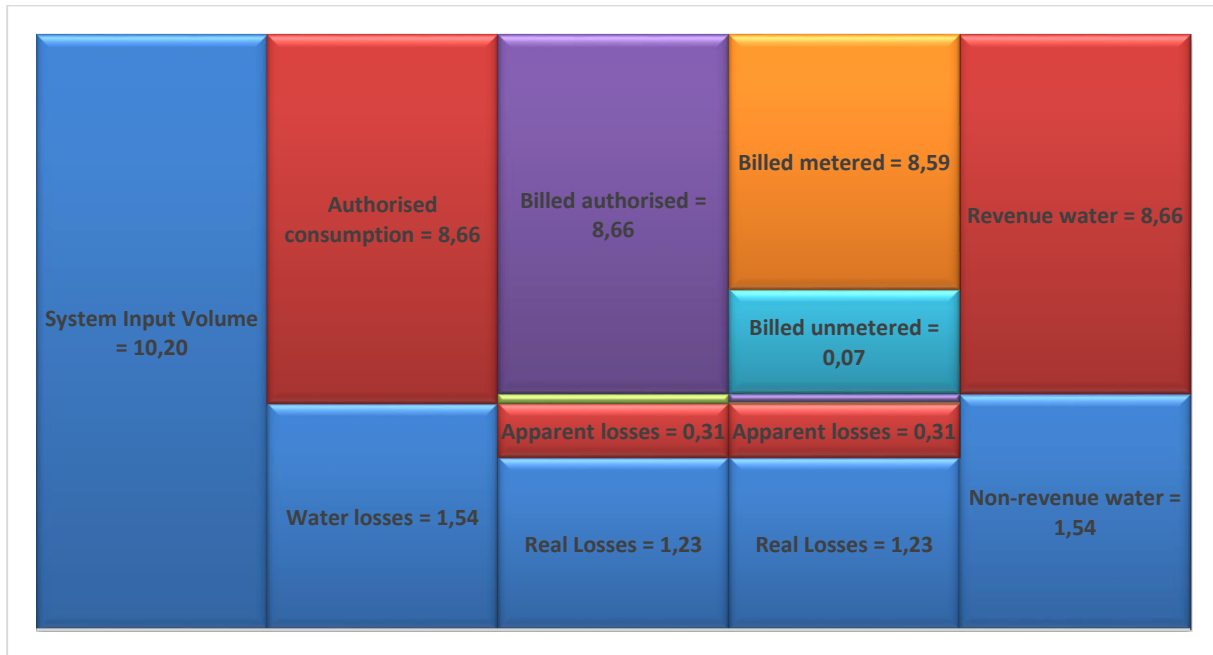
The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

George Local Municipality

2013 Municipal No Drop Score	88%
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Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		2.64%
No Drop Score (2013)		88% Good
INPUT DATA	Population	193 670
	Households	33 075
	Metered Connections	30 975
	Unmetered Connections	738
	Length of mains (km)	634
	Average System Pressure (m)	60
	2014 Water Use Targets (Water Balance Targets)	9.73 million
	System Input Volume (kl/annum)	10.20 million
	Billed Metered Authorised Use (kl/annum)	8.59 million
	Billed Unmetered Authorised Use (kl/annum)	0.07 million
	Unbilled Authorised Use (kl/annum)	0
	Assumed Commercial Losses (%)	20%
WATER DATA	Authorised Use – billed & unbilled (kl/annum)	8.66 million
	Water Losses (kl/annum)	1.54 million
	Apparent losses (kl/annum)	0.31 million
	Real Losses (kl/annum)	1.23 million
	Revenue Water (kl/annum)	8.66 million
	Non-Revenue Water (kl/annum)	1.54 million
KPIs	Infrastructure Leakage Index (ILI)	1.53 Excellent
	Apparent/ Commercial Losses (%)	3.02%
	Non-Revenue Water (%)	15% Good
	Water Use Efficiency (l/cap/day)	144.3 Excellent
OTHER	Authorised Use (l/cap/day)	122.53
	Real Losses (l/cap/day)	17.45
	% Water Losses	15.1%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The No Drop score of 88% indicates that George LM has a very good knowledge of its status, and has the required processes, systems and plans in place to manage water losses and non-revenue water.

Monthly and annual water balances are in place for the assessment period in question. The historic water balance trend data was used to verify and adjust the data set accordingly. A WCWDM Strategy is in place in Module 3 of the WSDP and partially compliant. It is noted that no budgets and responsibilities are assigned to the activities. Components listed under the WCWDM Strategy and Business Plan are included in the IDP. WCWDM implementation was taking place with a limited budget, reducing the water losses from 17,7% to 16,7%.

No Drop Findings

- The ILI of 1.53 is demonstrating excellent water loss management.
- The water use efficiency performance is excellent at 144.3 l/c/d.
- The NRW (15%) is demonstrating good non-revenue management but some improvement may be possible subject to economic benefit.

Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Hessequa Local Municipality

2013 Municipal No Drop Score	15.0%
Key Performance Area	Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)	0.45%
No Drop Score (2013)	15.0% Critical

Regulatory Impression

Limited evidence was provided by Hessequa municipality during the No Drop assessment. Also, credibility of data could not be confirmed during the audit process. No 2012/13 IWA water balance diagram reflected.

A WCWCWDM Strategy and Business Plan are in place with Council approval. However the Regulator note that the WSA has not been successful in securing funding for implementation, and therefore cannot implement the Strategy.

The Regulator impresses on the municipality that the first and most important step to ensure water security is to know your status. Hessequa is urged to establish its Water Balance as a matter of priority. Only then will the municipality be able to quantify the impact of water volumes and revenues lost, thereby weighing the cost benefit to prioritise WCWCWDM.

No Drop findings

- No monthly and annual water balances in place
- Some evidence of in-house WCWDM implementation includes the replacement of meters
- Compliance and performance evidence could not be provided
- Insufficient evidence to award a bonus.

Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Kannaland Local Municipality

2013 Municipal No Drop Score		0%
Key Performance Area	Status and Performance	
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)	0.00%	
No Drop Score (2013)	0% Critical	

Regulatory Impression

No evidence was provided by Kannaland LM during the No Drop assessment. Also, credibility of data could not be confirmed during the audit process. No 2012/13 IWA water balance diagram was supplied to reflect on the performance parameters under assessment.

The Regulator impresses on the municipality that the first and most important step to ensure water security is to know your status. Kannaland is urged to establish its Water Balance as a matter of priority.

No Drop findings

- No monthly water balances or an annual water balance in place
- No WCWDMS and BP in place
- No evidence of WCWDM implementation
- Compliance and performance evidence could not be provided
- Insufficient evidence to award a bonus.

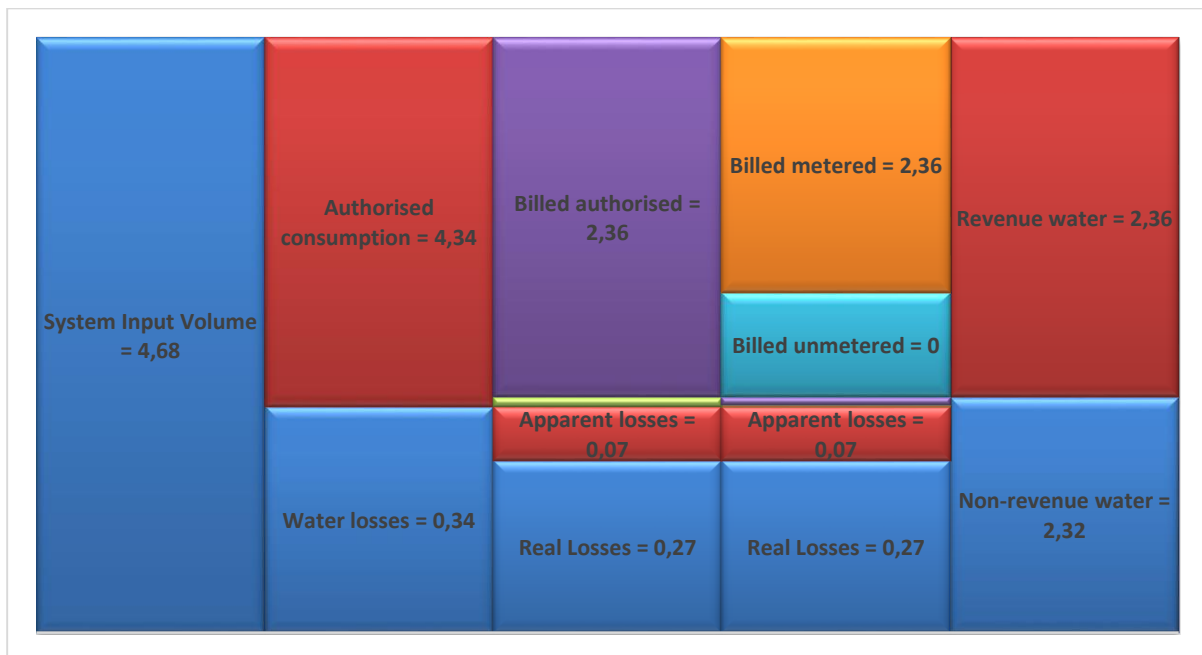
Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Knysna Local Municipality

2013 Municipal No Drop Score		87.82%
Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		2.63%
No Drop Score (2013)		87.82% Good
INPUT DATA	Population	56 125
	Households	21 264
	Metered Connections	11 249
	Unmetered Connections	585
	Length of mains (km)	236
	Average System Pressure (m)	40
	2014 Water Use Targets (Water Balance Targets)	4.44 million
	System Input Volume (kl/annum)	4,68 million
	Billed Metered Authorised Use (kl/annum)	2.36 million
	Billed Unmetered Authorised Use (kl/annum)	0
	Unbilled Authorised Use (kl/annum)	1.98 million
	Assumed Commercial Losses (%)	20%
	WATER BALANCE DATA	Authorised Use – billed & unbilled (kl/annum)
Water Losses (kl/annum)		0.34 million
Apparent losses (kl/annum)		0.07 million
Real Losses (kl/annum)		0.27 million
Revenue Water (kl/annum)		2.36 million
Non-Revenue Water (kl/annum)		2.32 million
KPIs	Infrastructure Leakage Index (ILI)	1.35 Excellent
	Apparent/ Commercial Losses (%)	1.45%
	Non-Revenue Water (%)	50% Extremely poor
	Water Use Efficiency (l/cap/day)	228.5 Average
OTHER	Authorised Use (l/cap/day)	211.93
	Real Losses (l/cap/day)	13.22
	% Water Losses	7.2%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The No Drop score of 87.8% indicates that Knysna is knowledgeable and informed on their WCWDM situation and has the necessary processes, systems and plans in place to manage water losses and non-revenue water.

Monthly and annual water balances are in place and were well presented for the assessment period in question. The historic water balance trend data was used to verify and adjust the data set accordingly. A WCWDM Strategy is in place and reflects in the IDP with the necessary prominence. WCWDM implementation included for associated projects for the R0.3 million ACIP funding and quarterly reports are generated and forwarded to DWS.

The Regulator trust that the No Drop findings will assist to improve on the high NRW status and move this figure into acceptable range. Knysna's progress will be followed with interest by the Department leading up to the next No Drop assessment.

No Drop Findings

- The ILI of 1.35 is demonstrating excellent water loss management.
- The water use efficiency performance is average at 228.5 l/c/d with potential for marked improvement.
- The NRW (50%) is demonstrating extremely poor non-revenue management.

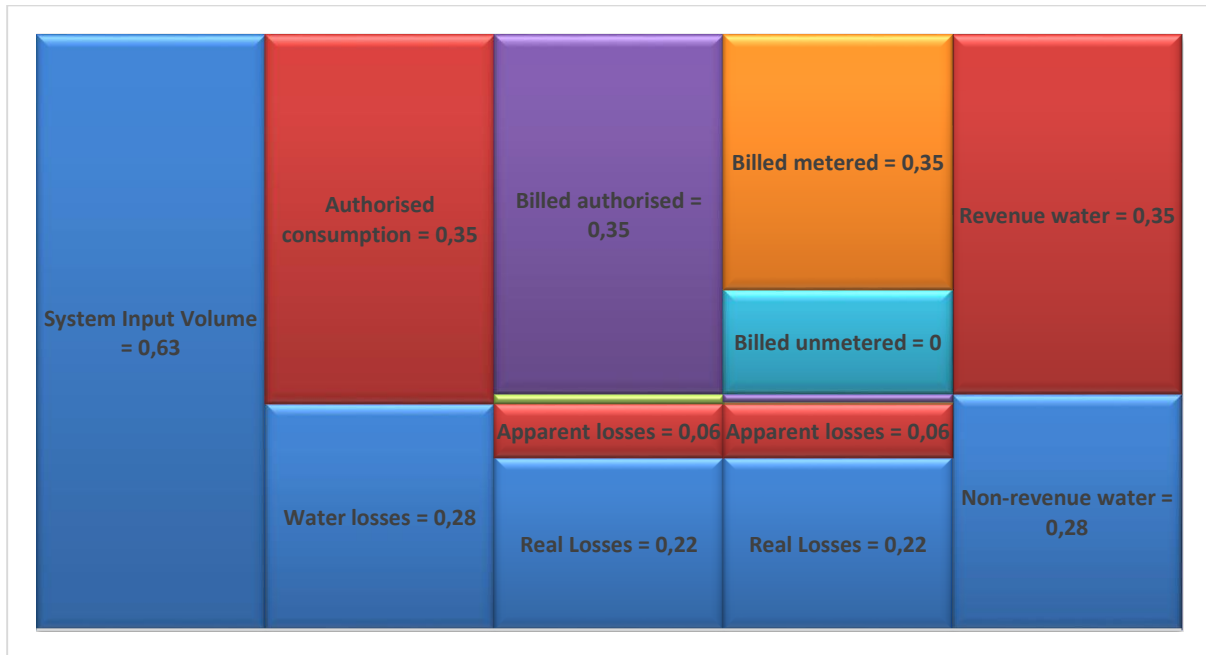
Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Laingsburg Local Municipality

2013 Municipal No Drop Score		26.45%
Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		0.79%
No Drop Score (2013)		26.45% Critical
INPUT DATA	Population	5 713
	Households	1 271
	Metered Connections	1 246
	Unmetered Connections	25
	Length of mains (km)	37
	Average System Pressure (m)	36
	2014 Water Use Targets (Water Balance Targets)	NA
	System Input Volume (kl/annum)	0.63 million
	Billed Metered Authorised Use (kl/annum)	0.35 million
	Billed Unmetered Authorised Use (kl/annum)	0
	Unbilled Authorised Use (kl/annum)	0
	Assumed Commercial Losses (%)	20%
WATER BALANCE DATA	Authorised Use – billed & unbilled (kl/annum)	0.35 million
	Water Losses (kl/annum)	0.28 million
	Apparent losses (kl/annum)	0.06 million
	Real Losses (kl/annum)	0.22 million
	Revenue Water (kl/annum)	0.35 million
	Non-Revenue Water (kl/annum)	0.28 million
KPIs	Infrastructure Leakage Index (ILI)	10.03 Extremely poor
	Apparent/ Commercial Losses (%)	8.80%
	Non-Revenue Water (%)	44% Extremely poor
	Water Use Efficiency (l/cap/day)	302.0 Extremely poor
OTHER	Authorised Use (l/cap/day)	169.16
	Real Losses (l/cap/day)	106.31
	% Water Losses	44%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The No Drop score of 26.5% indicates that Laingsburg has not yet achieved a satisfactory knowledge base pertaining to water loss and NRW management. It appears as if the necessary processes, systems, plans and resources may not be in place to manage water losses and non-revenue water.

Partially compliant water balances were presented linked to the assessment period in question. The historic water balance trend data was used to verify and adjust the data set accordingly. A draft WCWDM Strategy is in place and reflects in the IDP with the necessary prominence. Well done. WCWDM implementation was provided via the Water Services Audit Report progress reports on the WSAs performance.

The Regulator is concerned about the poor ILI, WUE and NRW performance in the municipality and encourage Laingsburg to use the No Drop findings to improve on this status going forward.

No Drop Findings

- Draft WCWDM Strategy in place but not approved by Council.
- It is unclear to what extent WCWDM plans have been included in the IDP.
- WCWDM implementation is not taking place.
- The ILI of 10.03 is demonstrating extremely poor water loss management.
- The water use efficiency performance is extremely poor at 302.0 l/c/d.
- The NRW (44%) is demonstrating extremely poor non-revenue management.

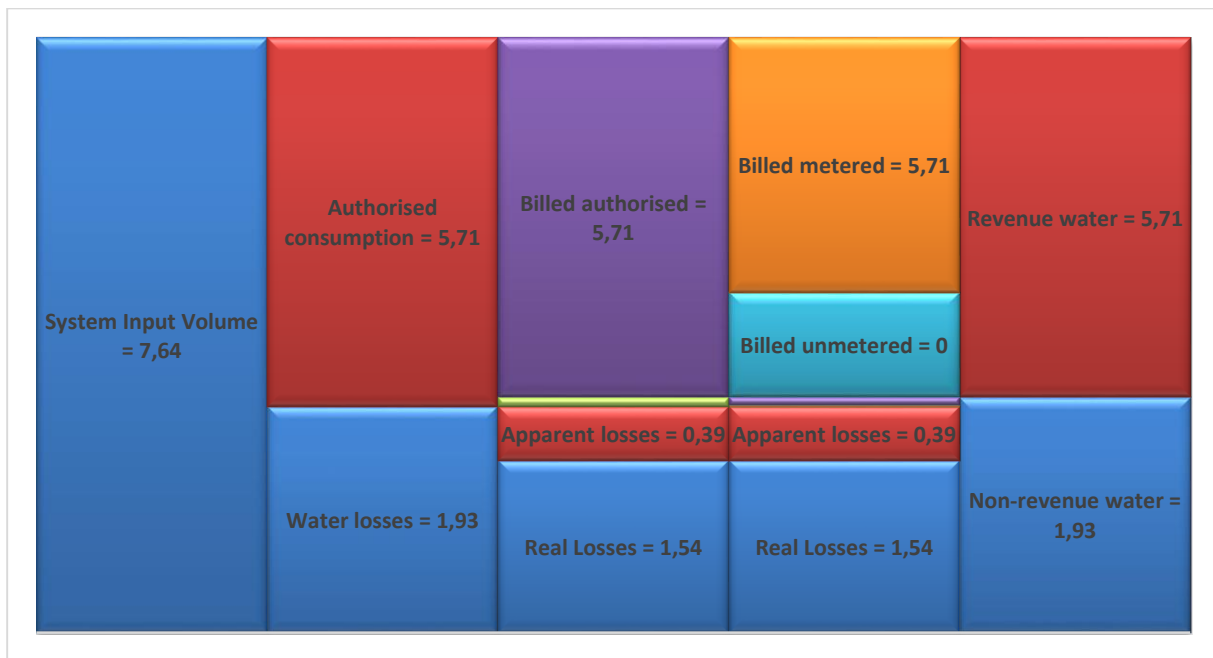
Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Langeberg Local Municipality

2013 Municipal No Drop Score		80%
Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		2.40%
No Drop Score (2013)		80% Good
INPUT DATA	Population	70 411
	Households	18 353
	Metered Connections	13 545
	Unmetered Connections	67
	Length of mains (km)	258
	Average System Pressure (m)	49
	2014 Water Use Targets (Water Balance Targets)	8.16 million
	System Input Volume (kl/annum)	7.64 million
	Billed Metered Authorised Use (kl/annum)	5.71 million
	Billed Unmetered Authorised Use (kl/annum)	0
	Unbilled Authorised Use (kl/annum)	0.02 million
	Assumed Commercial Losses (%)	20%
	WATER BALANCE DATA	Authorised Use – billed & unbilled (kl/annum)
Water Losses (kl/annum)		1.93 million
Apparent losses (kl/annum)		0.39 million
Real Losses (kl/annum)		1.54 million
Revenue Water (kl/annum)		5.71 million
Non-Revenue Water (kl/annum)		1.93 million
KPIs	Infrastructure Leakage Index (ILI)	5.59 Average
	Apparent/ Commercial Losses (%)	5.04%
	Non-Revenue Water (%)	25% Average
	Water Use Efficiency (l/cap/day)	297.3 Poor
OTHER	Authorised Use (l/cap/day)	222.32
	Real Losses (l/cap/day)	59.95
	% Water Losses	25.2%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The No Drop score of 80% indicates that Langeberg has a good knowledge of its status, and has most of the required processes, systems and plans in place to manage water losses and non-revenue water. Room for improvement can be identified going forward.

Partially compliant water balances are in place and were well presented for the assessment period in question. The historic water balance trend data was used to verify and adjust the data set accordingly. A WCWDM Strategy is in place but does not reflect prominently in the IDP. WCWDM implementation was indicated in a document dated 2014 with plan in place, costs and priorities.

The NRW, ILI and water use efficiency performance, as listed below, makes for a good business case to invest in WCWDM in the municipality.

No Drop Findings

- WCWDM Strategy is in place but not reflected or prioritised in the IDP.
- The ILI of 5.59 is demonstrating average water loss management with potential for marked improvement.
- The water use efficiency performance is poor at 297.3 l/c/d.
- The NRW (25%) is demonstrating average water loss management with potential for marked improvement.

Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Matzikama Local Municipality

2013 Municipal No Drop Score		0%
Key Performance Area	Status and Performance	
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)	0.00%	
No Drop Score (2013)	0% Critical	

Regulatory Impression

No evidence was provided by Matzikama LM during the No Drop assessment. Also, credibility of data could not be confirmed during the audit process. No 2012/13 IWA water balance diagram was supplied to reflect on the performance parameters under assessment.

The Regulator impresses on the municipality that the first and most important step to ensure water security is to know your status. Matzikama is urged to establish its Water Balance as a matter of priority.

No Drop findings

- No monthly water balances or an annual water balance in place
- No WCWDMS and BP in place
- No evidence of WCWDM implementation
- Compliance and performance evidence could not be provided
- Insufficient evidence to award a bonus.

Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Mossel Bay Local Municipality

2013 Municipal No Drop Score		12%
Key Performance Area	Status and Performance	
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)	0.36%	
No Drop Score (2013)	12% Critical	

Regulatory Impression

Limited evidence was provided by Mossel Bay LM during the No Drop assessment. Also, credibility of data could not be confirmed during the audit process. A partial compliant monthly and annual water balance was presented as evidence.

The Regulator notes with encouragement that a Water Conservation Policy is in place, and urges the LM to establish a WCWDM Strategy and Implementation Plan / Business Plan.

The Regulator impresses on the municipality that the first and most important step to ensure water security is to know your status. It is strongly recommended that WCWDM feature more prominently in the municipal IDP.

No Drop findings

- Partially compliant monthly and annual water balances in place
- No WCWDM Strategy and Business Plan in place
- No evidence of WCWDM implementation
- Compliance and performance evidence could not be provided
- Insufficient evidence to award a bonus.

Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Oudtshoorn Local Municipality

2013 Municipal No Drop Score

56.71

Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		1.70%
No Drop Score (2013)		56.71 Average
INPUT DATA	Population	94 780
	Households	21 372
	Metered Connections	13 862
	Unmetered Connections	10
	Length of mains (km)	277
	Average System Pressure (m)	55
	2014 Water Use Targets (Water Balance Targets)	NA
	System Input Volume (kl/annum)	7.46 million
	Billed Metered Authorised Use (kl/annum)	5.81 million
	Billed Unmetered Authorised Use (kl/annum)	0
	Unbilled Authorised Use (kl/annum)	0.15 million
	Assumed Commercial Losses (%)	20%
WATER BALANCE DATA	Authorised Use – billed & unbilled (kl/annum)	5.96 million
	Water Losses (kl/annum)	1.50 million
	Apparent losses (kl/annum)	0.30 million
	Real Losses (kl/annum)	1.20 million
	Revenue Water (kl/annum)	5.81 million
	Non-Revenue Water (kl/annum)	1.65 million
KPIs	Infrastructure Leakage Index (ILI)	3.72 Good
	Apparent/ Commercial Losses (%)	4.03%
	Non-Revenue Water (%)	22% Average
	Water Use Efficiency (l/cap/day)	215.7 Average
OTHER	Authorised Use (l/cap/day)	172.30
	Real Losses (l/cap/day)	34.74
	% Water Losses	20.1%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The No Drop score of 56.7% indicates that Oudtshoorn has an average knowledge of its status, and may not as yet have the required processes, systems and plans in place to manage water losses and non-revenue water.

Partially compliant water balances water balances are in and the historic water balance trend data was used to verify and adjust the data set accordingly. A WCWDM Strategy is in place but resources are not in place to effect implementation thereof.

The Regulator trust that the No Drop findings will assist to move all performance parameters, outlined below, from 'good' into 'excellent' status.

No Drop Findings

- Basic WCWDM Strategy is in place that mostly does not comply to good practice standards
- Components listed under the WCWDM Strategy and Business Plan is not included in the IDP.
- No WCWDM implementation is taking place.
- The ILI of 3.72 is demonstrating good water loss management but some improvement may be possible subject to economic benefit.
- The water use efficiency performance is average at 215.7 l/c/d with potential for marked improvement.
- The NRW (22%) is demonstrating average non-revenue management with potential for marked improvement.

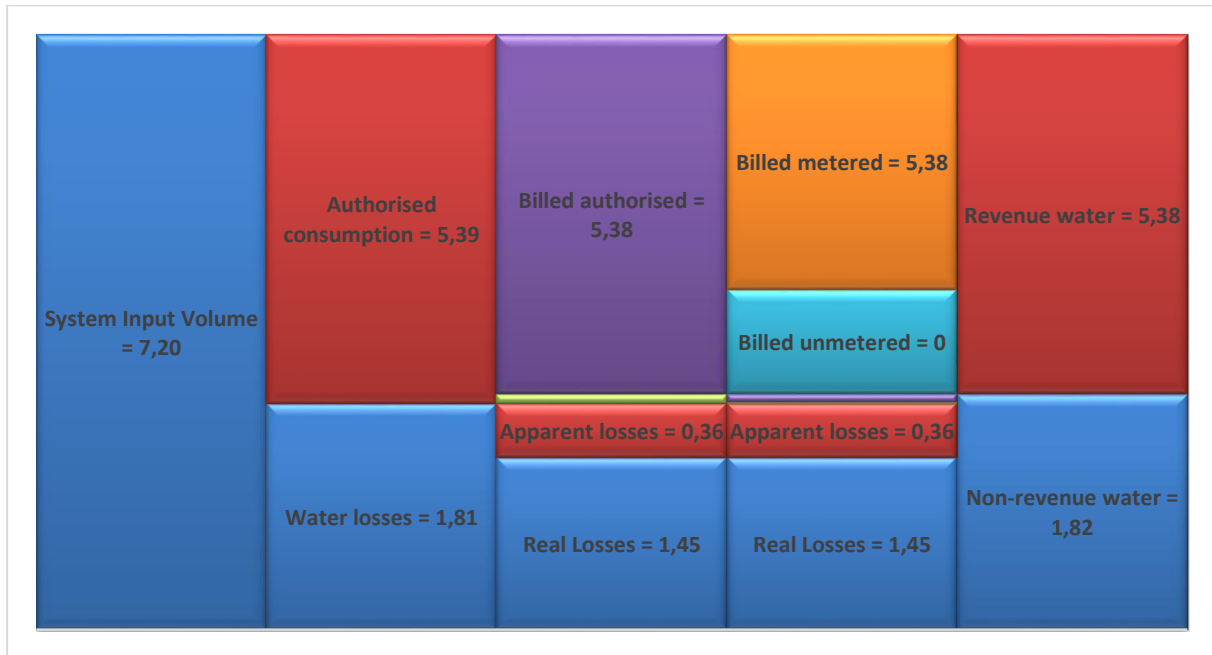
Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Overstrand Local Municipality

2013 Municipal No Drop Score		100%
Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		3.00%
No Drop Score (2013)		100% Excellent
INPUT DATA	Population	80 430
	Households	33 534
	Metered Connections	33 534
	Unmetered Connections	0
	Length of mains (km)	789
	Average System Pressure (m)	45
	2014 Water Use Targets (Water Balance Targets)	8.73 million
	System Input Volume (kl/annum)	7.20 million
	Billed Metered Authorised Use (kl/annum)	5.38 million
	Billed Unmetered Authorised Use (kl/annum)	0
	Unbilled Authorised Use (kl/annum)	0.07 million
	Assumed Commercial Losses (%)	20%
	WATER BALANCE DATA	Authorised Use – billed & unbilled (kl/annum)
Water Losses (kl/annum)		1.81 million
Apparent losses (kl/annum)		0.36 million
Real Losses (kl/annum)		1.45 million
Revenue Water (kl/annum)		5.38 million
Non-Revenue Water (kl/annum)		1.82 million
KPIs	Infrastructure Leakage Index (ILI)	2.17 Good
	Apparent/ Commercial Losses (%)	5.03%
	Non-Revenue Water (%)	25% Average
	Water Use Efficiency (l/cap/day)	245.2 Average
OTHER	Authorised Use (l/cap/day)	183.53
	Real Losses (l/cap/day)	49.34
	% Water Losses	25.2%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The full No Drop score 100% puts Overstrand on the top of the performance list in South Africa. Well done to the team for a remarkable effort and presentation of structured and detailed evidence. The No Drop score indicates that Overstrand has an excellent knowledge of its status, and has the required processes, systems and plans in place to manage water losses and non-revenue water.

Monthly and annual water balances are in place and were well presented for the assessment period in question. A comprehensive WCWDM Strategy is in place and reflects in the IDP with the necessary prominence. Well done. WCWDM implementation is a high priority in Overstrand and is evident from the 6-monthly progress reports and 12 month expenditure records presented for water meter replacement, installation of meters, PRVs and other projects. Water balance spreadsheets are submitted to DWS every 3 months and ACIP progress meetings are conducted and recorded regularly.

Overstrand's 1st No Drop results certainly set a benchmark for excellent knowledge in WCWDM. The Regulator trusts that this good start will translate to improvement in the NRW, WUE and ILI performance going forward.

No Drop Findings

- The ILI of 2.17 is demonstrating good water loss management but some improvement may be possible subject to economic benefit.
- The water use efficiency performance is average at 245.2 l/c/d with potential for marked improvement.
- The NRW (25%) is demonstrating average non-revenue management with potential for marked improvement.

Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Prins Albert Local Municipality

2013 Municipal No Drop Score		0%
Key Performance Area	Status and Performance	
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)	0.00%	
No Drop Score (2013)	0% Critical	

Regulatory Impression

No evidence was provided by Prins Albert LM during the No Drop assessment. Also, credibility of data could not be confirmed during the audit process. No 2012/13 IWA water balance diagram was supplied to reflect on the performance parameters under assessment.

The Regulator impresses on the municipality that the first and most important step to ensure water security is to know your status. Prins Albert is urged to establish its Water Balance as a matter of priority.

No Drop findings

- No monthly water balances or an annual water balance in place
- No WCWDMS and BP in place
- No evidence of WCWDM implementation
- Compliance and performance evidence could not be provided
- Insufficient evidence to award a bonus.

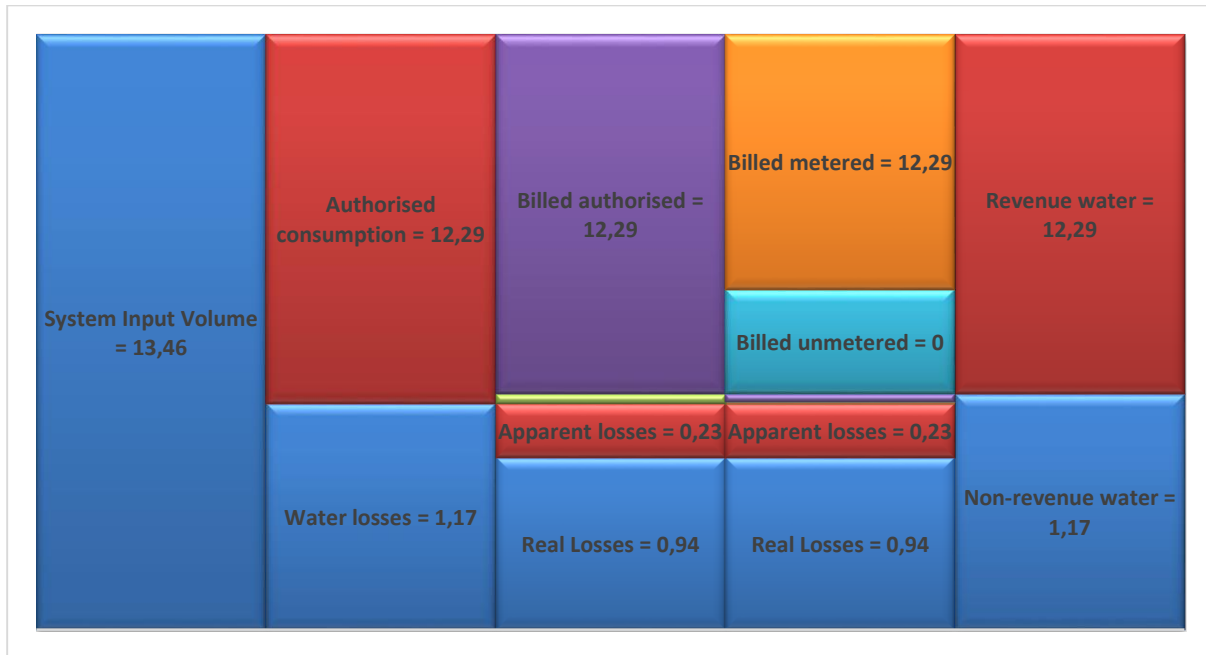
Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Saldanha Bay Local Municipality

2013 Municipal No Drop Score		30%
Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		0.90%
No Drop Score (2013)		30% Critical
INPUT DATA	Population	83 323
	Households	24 789
	Metered Connections	24 789
	Unmetered Connections	0
	Length of mains (km)	624
	Average System Pressure (m)	40
	2014 Water Use Targets (Water Balance Targets)	14.01 million
	System Input Volume (kl/annum)	13.46 million
	Billed Metered Authorised Use (kl/annum)	12.29 million
	Billed Unmetered Authorised Use (kl/annum)	0
	Unbilled Authorised Use (kl/annum)	0
	Assumed Commercial Losses (%)	20%
	WATER BALANCE DATA	Authorised Use – billed & unbilled (kl/annum)
Water Losses (kl/annum)		1.17 million
Apparent losses (kl/annum)		0.23 million
Real Losses (kl/annum)		0.94 million
Revenue Water (kl/annum)		12.29 million
Non-Revenue Water (kl/annum)		1.17 million
KPIs	Infrastructure Leakage Index (ILI)	2.07 Good
	Apparent/ Commercial Losses (%)	1.75%
	Non-Revenue Water (%)	9% Excellent
	Water Use Efficiency (l/cap/day)	442.7 Extremely poor
OTHER	Authorised Use (l/cap/day)	404.05
	Real Losses (l/cap/day)	30.91
	% Water Losses	8.7%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The No Drop score of 30% indicates that Saldanha Bay has not established the required knowledge base, processes, systems and plans in place to manage water losses and non-revenue water.

Partially compliant water balances are in place and were presented for the assessment period in question. The historic water balance trend data was used to verify and adjust the data set accordingly. A WCWDM Strategy is in place, approved by Council, and reflected in the IDP. This is a good start - well done.

The Regulator trust that the No Drop findings will assist to move all performance parameters from 'good' into 'excellent' status. Saldanha is congratulated for its current status on NRW (9%) and is encouraged to address the remaining elements of the No Drop Certification going forward.

No Drop Findings

- Partially compliant water balances were submitted that was linked to the assessment period in question. The historic water balance trend data was used to verify and adjust the data set accordingly.
- A Strategy is in place but no WCWDM implementation is taking place.
- The ILI of 2.07 is demonstrating good water loss management but some improvement may be possible subject to economic benefit.
- The water use efficiency performance is extremely poor at 442.7 l/c/d.
- The NRW (9%) is demonstrating excellent non-revenue management.

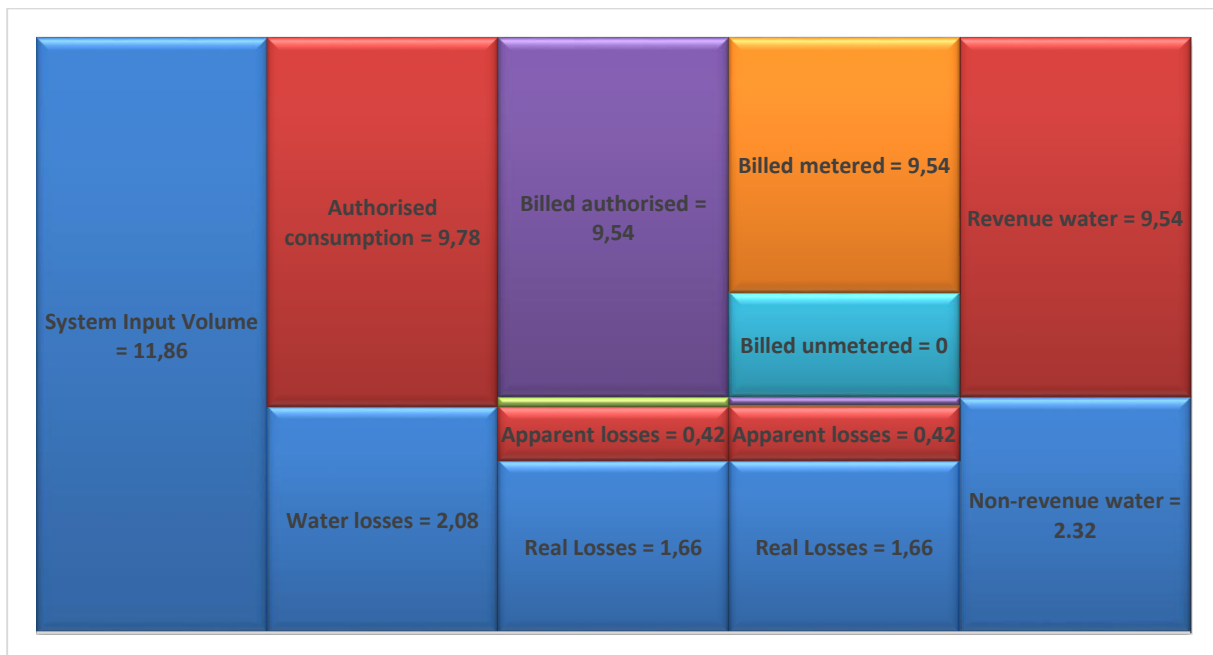
Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Stellenbosch Local Municipality

2013 Municipal No Drop Score		80%
Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		2.40%
No Drop Score (2013)		80% Good
INPUT DATA	Population	222 574
	Households	29 901
	Metered Connections	23 724
	Unmetered Connections	
	Length of mains (km)	485
	Average System Pressure (m)	45
	2014 Water Use Targets (Water Balance Targets)	14.17 million
	System Input Volume (kl/annum)	11.86 million
	Billed Metered Authorised Use (kl/annum)	9.54 million
	Billed Unmetered Authorised Use (kl/annum)	0
	Unbilled Authorised Use (kl/annum)	0.24 million
	Assumed Commercial Losses (%)	20%
	WATER BALANCE DATA	Authorised Use – billed & unbilled (kl/annum)
Water Losses (kl/annum)		2.08 million
Apparent losses (kl/annum)		0.42 million
Real Losses (kl/annum)		1.66 million
Revenue Water (kl/annum)		9.54 million
Non-Revenue Water (kl/annum)		2.32 million
KPIs	Infrastructure Leakage Index (ILI)	3.65 Good
	Apparent/ Commercial Losses (%)	3.51%
	Non-Revenue Water (%)	20% Good
	Water Use Efficiency (l/cap/day)	146.0 Excellent
OTHER	Authorised Use (l/cap/day)	120.38
	Real Losses (l/cap/day)	20.47
	% Water Losses	17.5%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The No Drop score of 80% indicates that Stellenbosch has a good knowledge of its status, and has some of the required processes, systems and plans in place to manage water losses and non-revenue water. Room for improvement can be identified to raise the No Drop score further in the next assessment cycle. Monthly and annual water balances are in place and were presented for the assessment period in question. The historic water balance trend data was used to verify and adjust the data set accordingly. A WCWDM Strategy is in place and reflected in the IDP with the necessary prominence. Well done. The WSA has a 3-year (2013-16) approved budget to address capital projects with focus on demand management.

WCWDM implementation includes a pipe replacement study to prioritize pipe replacement in all areas, refurbishment of inline meters in all reservoirs, supported by zone-based telemetry systems. Inlet and outlet meters have been installed in reservoirs. The main focus has been pipe replacement and upgrading of the network which includes meter and bulk meter replacement programs in Stellenbosch, Franschhoek and Wemmershoek areas. Central areas of Stellenbosch have been targeted for installation of combination meters. PRV's have also been installed in Stellenbosch.

No Drop Findings

- The ILI of 3.65 is demonstrating good water loss management.
- The water use efficiency performance is excellent at 146.0 l/c/d.
- The NRW (20%) is demonstrating good non-revenue management but some improvement may be possible subject to economic benefit.

Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Swellendam Local Municipality

2013 Municipal No Drop Score		0%
Key Performance Area	Status and Performance	
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)	0.00%	
No Drop Score (2013)	0% Critical	

Regulatory Impression

No evidence was provided by Swellendam LM during the No Drop assessment. Also, credibility of data could not be confirmed during the audit process. No 2012/13 IWA water balance diagram was supplied to reflect on the performance parameters under assessment.

The Regulator impresses on the municipality that the first and most important step to ensure water security is to know your status. Swellendam is urged to establish its Water Balance as a matter of priority.

No Drop findings

- No monthly water balances or an annual water balance in place
- No WCWDM Strategy and Business Plan in place
- No evidence of WCWDM implementation
- Compliance and performance evidence could not be provided
- Insufficient evidence to award a bonus.

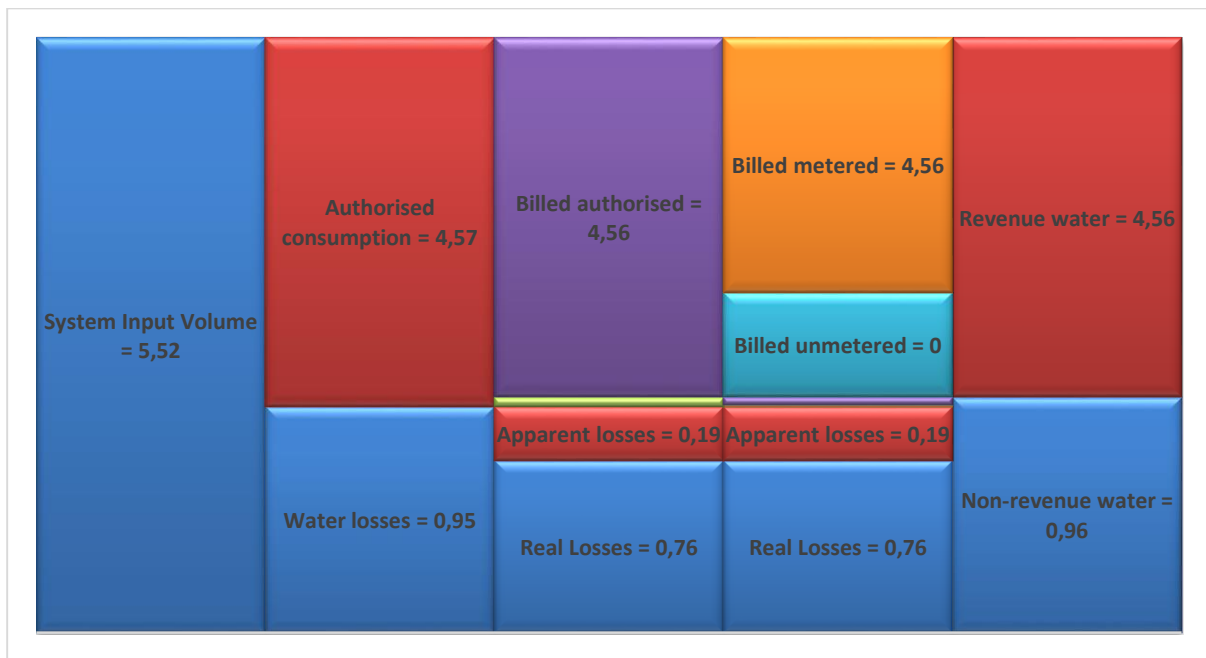
Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Swartland Local Municipality

2013 Municipal No Drop Score		99.24%
Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		2.98%
No Drop Score (2013)		99.24% Excellent
INPUT DATA	Population	81 349
	Households	20 970
	Metered Connections	18 610
	Unmetered Connections	0
	Length of mains (km)	380
	Average System Pressure (m)	40
	2014 Water Use Targets (Water Balance Targets)	5.65 million
	System Input Volume (kl/annum)	5.52 million
	Billed Metered Authorised Use (kl/annum)	4.56 million
	Billed Unmetered Authorised Use (kl/annum)	0
	Unbilled Authorised Use (kl/annum)	0.01 million
	Assumed Commercial Losses (%)	20%
	WATER BALANCE DATA	Authorised Use – billed & unbilled (kl/annum)
Water Losses (kl/annum)		0.95 million
Apparent losses (kl/annum)		0.19 million
Real Losses (kl/annum)		0.76 million
Revenue Water (kl/annum)		4.56 million
Non-Revenue Water (kl/annum)		0.96 million
KPIs	Infrastructure Leakage Index (ILI)	2.39 Good
	Apparent/ Commercial Losses (%)	3.43%
	Non-Revenue Water (%)	17% Good
	Water Use Efficiency (l/cap/day)	185.8 Excellent
OTHER	Authorised Use (l/cap/day)	153.88
	Real Losses (l/cap/day)	25.51
	% Water Losses	17.2%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The outstanding No Drop score of 99.24% is testimony to Swartland Municipality's excellent knowledge base, as well as the standing of its processes, systems and plans to manage water losses and non-revenue water.

Monthly and annual water balances are in place and were well presented for the assessment period in question. The historic water balance trend data was used to verify and adjust the data set accordingly. A comprehensive WCWDM Strategy is in place and reflects in the IDP with the necessary prominence. Well done.

WCWDM implementation includes the reuse of treated effluent, pipe replacement programme (replaced 3.2km), leak repairs at indigent households, repair of burst pipes within 3 hours. For the 2014-15 financial year, R1.8 million was budgeted for pipe replacement projects. ACIP funding were received in 2013-14 financial year to conduct and address minimum night flow analyses.

The Regulator trust that the No Drop findings will assist to move all performance parameters from 'good' into 'excellent' status. Swartland is congratulated for presenting its evidence competently and with high diligence.

No Drop Findings

- The ILI of 2.39 is demonstrating good water loss management but some improvement may be possible subject to economic benefit.
- The water use efficiency performance is excellent at 185.8 l/c/d.
- The NRW (17%) is demonstrating good non-revenue management but further improvement is possible.

Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Tweewaterskloof Local Municipality

2013 Municipal No Drop Score	96.92%
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Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		2.91%
No Drop Score (2013)		96.92% Excellent
INPUT DATA	Population	77 491
	Households	22 211
	Metered Connections	20 571
	Unmetered Connections	0
	Length of mains (km)	467
	Average System Pressure (m)	44
	2014 Water Use Targets (Water Balance Targets)	4.75 million
	System Input Volume (kl/annum)	4.49 million
	Billed Metered Authorised Use (kl/annum)	3.53 million
	Billed Unmetered Authorised Use (kl/annum)	0
	Unbilled Authorised Use (kl/annum)	0.09 million
	Assumed Commercial Losses (%)	20%
	WATER BALANCE DATA	Authorised Use – billed & unbilled (kl/annum)
Water Losses (kl/annum)		0.95 million
Apparent losses (kl/annum)		0.19 million
Real Losses (kl/annum)		0.76 million
Revenue Water (kl/annum)		3.53 million
Non-Revenue Water (kl/annum)		0.96 million
KPIs	Infrastructure Leakage Index (ILI)	1.88 Excellent
	Apparent/ Commercial Losses (%)	4.23%
	Non-Revenue Water (%)	21% Average
	Water Use Efficiency (l/cap/day)	158.6 Good
OTHER	Authorised Use (l/cap/day)	125.10
	Real Losses (l/cap/day)	26.81
	% Water Losses	21.1%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The No Drop score of 96.9% indicates that Theewaterskloof has an excellent knowledge of its status, and has the required processes, systems and plans in place to manage water losses and non-revenue water.

Monthly and annual water balances are in place and were well presented for the assessment period in question. The historic water balance trend data was used to verify and adjust the data set accordingly. A comprehensive WCWDM Strategy is in place and reflects in the IDP with the necessary prominence. Well done. WCWDM implementation includes a 10-year budget and activities starting in 2013-14 with the budget allocated.

The Regulator trusts that the No Drop findings will assist to further reduce the NRW of 21%. Theewaterskloof is congratulated for presenting its evidence in a structured and professional manner.

No Drop Findings

- The ILI of 1.88 is demonstrating excellent water loss management.
- The water use efficiency performance is good at 158.6 l/c/d but some improvement may be possible subject to economic benefit.
- The NRW (21%) is demonstrating average non-revenue management with potential for marked improvement.

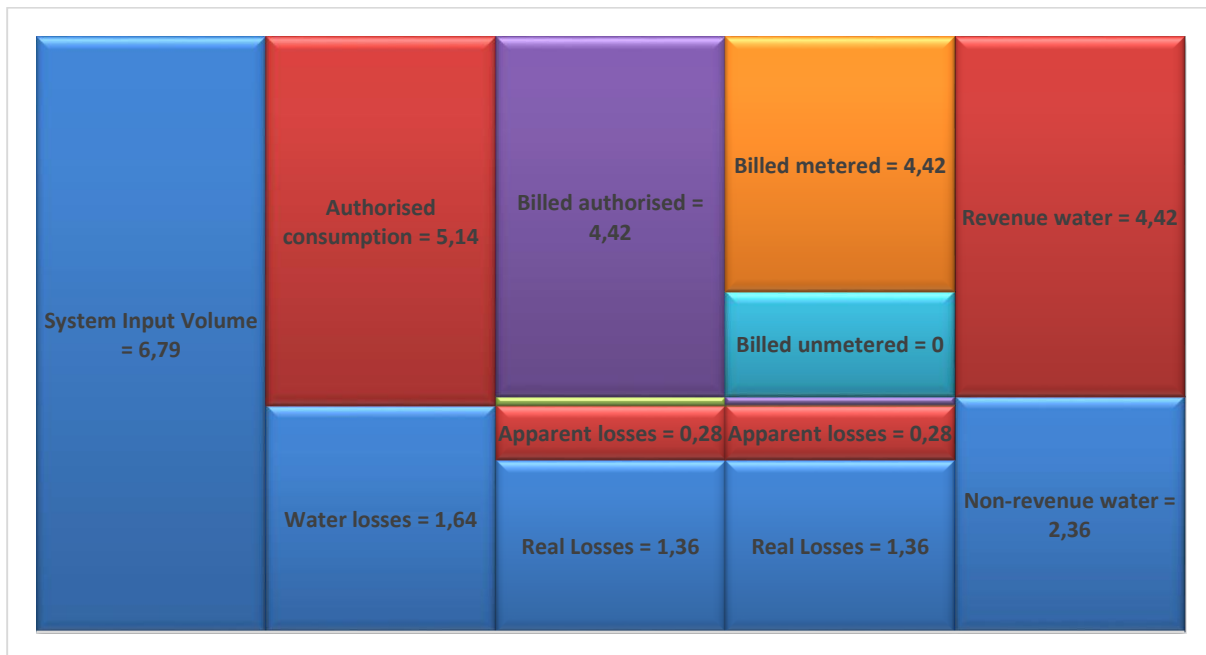
Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.

Witzenberg Local Municipality

2013 Municipal No Drop Score		96.92%
Key Performance Area		Status and Performance
WATER USE EFFICIENCY & WATER LOSS MANAGEMENT (3% weight)		2.91%
No Drop Score (2013)		96.92% Excellent
INPUT DATA	Population	62 662
	Households	12 750
	Metered Connections	11 080
	Unmetered Connections	0
	Length of mains (km)	224
	Average System Pressure (m)	28
	2014 Water Use Targets (Water Balance Targets)	6.96 million
	System Input Volume (kl/annum)	6.79 million
	Billed Metered Authorised Use (kl/annum)	4.42 million
	Billed Unmetered Authorised Use (kl/annum)	0
	Unbilled Authorised Use (kl/annum)	0.72 million
	Assumed Commercial Losses (%)	17%
	WATER BALANCE DATA	Authorised Use – billed & unbilled (kl/annum)
Water Losses (kl/annum)		1.64 million
Apparent losses (kl/annum)		0.28 million
Real Losses (kl/annum)		1.36 million
Revenue Water (kl/annum)		4.42 million
Non-Revenue Water (kl/annum)		2.36 million
KPIs	Infrastructure Leakage Index (ILI)	10.36 Extremely poor
	Apparent/ Commercial Losses (%)	4.12%
	Non-Revenue Water (%)	35% Poor
	Water Use Efficiency (l/cap/day)	296.7 Poor
OTHER	Authorised Use (l/cap/day)	224.83
	Real Losses (l/cap/day)	59.68
	% Water Losses	24.2%

2012/13 IWA Water Balance (million m³/annum)



Regulatory Impression

The No Drop score of 96.9% indicates that Witzenberg has an excellent knowledge of its status, and has the required processes, systems and plans in place to manage water losses and non-revenue water.

Monthly and annual water balances are in place and were presented for the assessment period in question. The historic water balance trend data was used to verify and adjust the data set accordingly. A WCWDM Strategy is in place but not clearly reflected in the IDP with the necessary prominence. Witzenberg may take note of the gaps identified, as listed under Findings.

The Regulator trusts that the No Drop findings will assist to move the performance parameters from their current status towards more progressive positions. In particular, NRW and ILI could be improved to levels that reflect good WCWDM, as practice and plans are already in place to drive such performance improvements.

No Drop Findings

- WCWDM Strategy in place but partially compliant due to no KPI targets, persons allocated responsibilities, budgets and timelines. Unclear whether components of the Strategy and Plan were included in the IDP.
- WCWDM implementation was indicated and supported by a list of projects, but not sufficiently specified.
- The ILI of 10.36 is demonstrating extremely poor water loss management.
- The water use efficiency performance is poor at 296.7 l/c/d.
- The NRW (35%) is demonstrating poor non-revenue management.

Sustainability Pathway

The municipality should endeavour to implement the findings and recommendations of the No Drop assessment, which will lead to improved sustainability, and security of water services.