Technical Indicator Descriptions extracted for all Tier 1 and 2 indicators

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Energy & Electricity

1.1 EE1.1

Technical indicator description sheet					
A1 Indicator short name	**Percentage of households with access to electricity**	**A2 Alignment**	Improved access to electricity	**A7 Rationale**	Important in order to understand whether the principles of the Constitution are being fulfilled of providing social equity and development in terms of access to a basic electricity service; meeting Sustainable Development Goals; and identifying the percentage of households enabled through the benefits of a regular energy source.
		A3 Results-chain level	Outcome	**A8 Definition**	Percentage of households that have access to electricity services within the municipal area.
INDICATOR ASSIGNMENT	EE1.1	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Number of households having access to electricity / (2) Total number of households within the municipal area) *100
A5 Unit of measurement	Percentage of households	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	United Nations Sustainable Development Goal SDG 7.11 Proportion of population with access to electricity Similar to ISO 37120 Energy indicator 7.2
A11 Notes on calculation	There will be a one year lag in this data on account of delays between collection and dissemination of the data.			**A12 Additional notes**	This will only look at those having access to electricity in the conventional sense. In the future, this may be expanded to look at other forms of access (access to off-grid, access to other forms of energy, etc).

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
National	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of households having access to electricity	**B4 Source**	StatsSA General Household Survey	**C1 Data Element**	(2) Total number of households in the municipality	**C4 Source**	StatsSA General Household Survey
B2 Frequency of collection	Annual	**B5 Units**	Number of households	**C2 Frequency of collection**	Annual	**C5 Units**	Number of households
B3 Definition	This is the total number of households that have access to electricity			**C3 Definition**	This is the total number of households (of all types - formal, informal, and traditional) within the municipal area of jurisdiction		
B6 Notes	-			**C6 Notes**	The data element is understood to be specific to the survey item used to obtain the data by Statistics South Africa to avoid issues arising from non-response during the survey.		

1.2 EE1.11

Technical indicator description sheet

A1 Indicator short name	**Number of dwellings provided with connections to mains electricity supply by the municipality**	**A2 Alignment**	Improved access to electricity	**A7 Rationale**	The city needs to ensure that all new dwelings are provided with an electricity connection. Additionally, they need to clear backlogs of existing dwellings that do not have electricity connections which fall under their responsibility (as opposed to Eskom's). This indicator which measures the city's progress in this area will contribute to overall access to electricity for the municipality.
		A3 Results-chain level	Output	**A8 Definition**	The number of new residential electricity connections to dwellings provided by the municipality
INDICATOR ASSIGNMENT	EE1.11	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Count of residential supply points commissioned and energised by the municipality
A5 Unit of measurement	Number of connections	**A6 Frequency of reporting**	Quarterly	**A10 Indicator origin**	B2B framework
A11 Notes on calculation	This should be a year-to-date figure for the respective financial year.			**A12 Additional notes**	Dwellings include all types and is not limited to those connected by INEP grants. New property developments that require electricity connections for residential units will also be counted. Informal developments will also be counted. New areas previously handled by Eskom should not be counted as new connections, unless the municipality puts in new supply points. The municipality should have some way of differentiating between these "new" customers and actual new connections.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Residential supply points energised and commissioned by the municipality	**B4 Source**	Municipal Customer & Billing Database	**C1 Data Element**	-	**C4 Source**	-
B2 Frequency of collection	Quarterly	**B5 Units**	Number of electricity connections	**C2 Frequency of collection**	-	**C5 Units**	-
B3 Definition	The number of dwellings that are newly connected to mains electricity supply by the municipality.			**C3 Definition**	-		
B6 Notes	None			**C6 Notes**	-		

1.3 EE3.1

Technical indicator description sheet

A1 Indicator short name	**System Average Interruption**	**A2 Alignment**	Improved reliability of electricity service	**A7 Rationale**	Reliability is a key pillar of service delivery. Interruptions result in: revenue loss to the utility; cost of unserved energy which in turn has an impact

	Duration Index	**A3 Results-chain level**	Outcome		on the economy; impact on customer satisfaction. Minimising the average interruption duration of the system is in the financial and service delivery interests of the municipality.
				A8 Definition	The indicator is a measure from the system perspective of how long the average customer went without electricity supply in minutes.
INDICATOR ASSIGNMENT	EE3.1	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(Sum of (1) Restoration time for customers per incident x logged * (2) Number of customers affected by sustained supply interruption) / (3) Total number of electricity customers
A5 Unit of measurement	Average interruption minutes	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	IEEE Electric Power Distribution Reliability Indices and similar to ISO 37120 Energy indicator 7.7 Average length of electrical interruptions (in hours)
A11 Notes on calculation	Cumulative indicator, i.e. the figure reported for the year should be for the financial year.			**A12 Additional notes**	Only sustained interruptions should be included in this indicator. IEEE defines a sustained interruption as any interruption lasting one minute or more in duration. All municipalities may not have SCADA systems in place for their MV network; they should work towards getting these systems in place. Until such systems are in place, workarounds may need to be utilised (track from when the customer calls in a fault for example). All municipalities should have customer network link diagrams in place. Where this is not the case, the municipality should ensure that these are put in place as this is very important information.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) Restoration time for customers per incident x logged	**B4 Source**	Municipal systems (perhaps work management system)	**C1 Data Element**	(2) Number of customers affected by sustained supply interruption incident x	**C4 Source**	Municipal systems (perhaps NEPS - Network and Equipment Performance System) and CNL (Customer Network link)
B2 Frequency of collection	Annual	**B5 Units**	Minutes	**C2 Frequency of collection**	Annual	**C5 Units**	Number of customers
B3 Definition	The time it takes to restore electricity supply to every customer who suffered a sustained disruption incident x from the time it has been logged			**C3 Definition**	The number of customers who faced a sustained interruption in their supply during incident x		
B6 Notes	Municipal Electricity Operations and Maintenace or Quality of Supply Division should be able to provide			**C6 Notes**	Municipal electricity Operations and Maintenace or Quality of Supply division should be able to provide		

D1 Data Element	(3) Total number of electricty customers	**D4 Source**	Municipal systems (perhaps work management system)	**E1 Data Element**	-	**E4 Source**	-
D2 Frequency of collection	Annual	**D5 Units**	Number of customers	**E2 Frequency of collection**	-	**E5 Units**	-
D3 Definition	Total number of municipal customers that are registered on municipal database for receiving electricity services from the municipality			**E3 Definition**	-		
D6 Notes	Municipal Retail Services			**E6 Notes**	-		

1.4 EE3.11

Technical indicator description sheet

A1 Indicator short name	**Percentage of unplanned outages that are restored to supply within industry standard timeframes**	**A2 Alignment**	Improved reliability of electricity service	**A7 Rationale**	Once an unplanned outage has occurred, the municipality should strive to restore power to the affected groups as soon as possible. Quick turn around implies greater reliability of the municipal electricity service. This indicator is a distribution of MTTR (Mean Time to Restore), which is the average time it takes to restore supply once an interruption takes place.		
		A3 Results-chain level	Output	**A8 Definition**	The proportion of MTTRs that are within industry standards where MTTR is the average time it takes to restore unplanned outages. The following five categories of restoration time are applied as industry standards NSR 047: X=1.5, 3.5, 7.5, 24 and 168		
INDICATOR ASSIGNMENT	EE3.11	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	((1) Number of unplanned outages restored within x hours / (2) Total number of unplanned outages) x 100, where x is based on industry standards (x=1.5, 3.5, 7.5, 24 and 168) and as per NRS 047.		
A5 Unit of measurement	Percentage of outages	**A6 Frequency of reporting**	Quarterly	**A10 Indicator origin**	IEEE Electric Power Distribution Reliability Indices: MTTR		
A11 Notes on calculation	Cumulative indicator, i.e. the reported figure in a given quarter should be a year-to-date figure for the financial year.			**A12 Additional notes**	Originally, this indicator was set using the parameters determined by Eskom (x= 0.5, 1.5, 3.5, 24 or less). Municipal feedback has since shifted this to the following NSR 047 standards where x=1.5, 3.5, 7.5, 24 and 168 or less. There may be some discrepancies between municipalities as some municipalities do not have automated systems. Thus their turn around timeframes will begin from the time the customer reported an outage. However, we should start with what is available for now and work towards uniformity. The 0.5 hr mark will only be possible to report in municipalities where SCADA systems are in place.		

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of unplanned outages restored within x hours	**B4 Source**	Municipal works management systems (work order systems)	**C1 Data Element**	(2) Total number of unplanned outages	**C4 Source**	Municipal work order systems or planned maintenance plans
B2 Frequency of collection	Quarterly	**B5 Units**	Number of outages	**C2 Frequency of collection**	Quarterly	**C5 Units**	Number of unplanned outages logged on the system
B3 Definition	Sum of all occurrences of unplanned outages that were restored within x hours as per the category of outage			**C3 Definition**	Total number of unplanned outages logged on the system		
B6 Notes	-			**C6 Notes**	-		

1.5 EE3.2

Technical indicator description sheet

A1 Indicator short name	**Customer Average Interruption Duration Index**	**A2 Alignment**	Improved reliability of electricity service	**A7 Rationale**	Reliability is a key pillar of service delivery. Interruptions result in: revenue loss to the utility; cost of unserved energy which in turn has an impact on the economy; impact on customer satisfaction. Minimising the average interruption duration for the customer is in the financial and service delivery interests of the municipality.
		A3 Results-chain level	Outcome	**A8 Definition**	A measure of the average time to restore service for a customer who suffered a sustained interruption in their supply in minutes.
INDICATOR ASSIGNMENT	EE3.2	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(Sum of (1) Restoration time for customers per incident x logged * (2) Number of customers affected by a sustained supply interruption) / (3) Total number of customers affected by any supply interruption incident
A5 Unit of measurement	Average interruption minutes	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	IEEE Electric Power Distribution Reliability Indices and similar to ISO 37120 Energy indicator 7.7 Average length of electrical interruptions (in hours)
A11 Notes on calculation	Cumulative indicator, i.e. the figure reported for the year should be for the financial year.			**A12 Additional notes**	Only sustained interruptions should be included in this indicator. IEEE defines a sustained interruption as any interruption lasting one minute or more in duration. All municipalities may not have SCADA systems in place for their MV network; they should work towards getting these systems in place. Until such systems are in place, workarounds may need to be utilised (track from when the customer calls in a fault for example). All municipalities should have customer network link diagrams in place. Where this is not the case, the municipality should ensure that these are put in place as this is very important information.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) Restoration time for customers per incident x logged	**B4 Source**	Municipal systems (perhaps work management system)	**C1 Data Element**	(2) Number of customers affected by sustained supply interruption incident x	**C4 Source**	Municipal systems (perhaps NEPS - Network and Equipment Performance System) and CNL (Customer Network link)
B2 Frequency of collection	Annual	**B5 Units**	Minutes	**C2 Frequency of collection**	Annual	**C5 Units**	Number of customers

B3 Definition	The time it takes to restore electricity supply to every customer who suffered a sustained disruption incident x from the time it has been logged			**C3 Definition**	The number of customers who faced a sustained interruption in their supply during incident x		
B6 Notes	Municipal electricity Operations and Maintenance or Quality of Supply division should be able to provide			**C6 Notes**	Municipal electricity Operations and Maintenance or Quality of Supply division should be able to provide		
D1 Data Element	(3) Total number of electricity customers affected by any sustained supply interruption incident	**D4 Source**	Municipal systems (perhaps NEPS - Network and Equipment Performance System) and CNL (Customer Network link)	**E1 Data Element**	-	**E4 Source**	-
D2 Frequency of collection	Annual	**D5 Units**	Number of customers	**E2 Frequency of collection**	-	**E5 Units**	-
D3 Definition	The number of customers who faced an interruption in their supply during any incident			**E3 Definition**	-		
D6 Notes	Municipal electricity Operations and Maintenance or Quality of Supply division should be able to provide			**E6 Notes**	-		

1.6 EE3.21

Technical indicator description sheet

A1 Indicator short name	**Percentage of planned maintenance performed**	**A2 Alignment**	Improved reliability of electricity service	**A7 Rationale**	Planned maintenance helps the utility to ensure that infrastructure is maintained and equipped to promote reliability and security of supply. Planned maintenance that is carried out as per plan should reduce the number of unplanned outages which are more cumbersome to restore. It should thus also reduce the total number of interruption minutes for the municipality, thereby improving all the outcome indicators.
		A3 Results-chain level	Output	**A8 Definition**	Actual planned/preventative maintenance effort (hrs) as a percentage of budgeted planned/preventative maintenance effort (hrs)
INDICATOR ASSIGNMENT	EE3.21	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Actual number of maintenance hours for planned/preventative maintenance / (2) Budgeted number of maintenance hours for planned/preventative maintenance)*100
A5 Unit of measurement	Percentage of planned/preventative maintenance hours	**A6 Frequency of reporting**	Quarterly	**A10 Indicator origin**	Similar to USDoE Industry O&M Indicators: Prevention Maintenance completion percentage
A11 Notes on calculation	Year-to-date			**A12 Additional notes**	None

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Actual number of maintenance hours for planned/preventative maintenance	**B4 Source**	Municipal work order systems	**C1 Data Element**	(2) Budgeted number of maintenance hours for planned/preventative maintenance	**C4 Source**	Municipal work order systems or planned maintenance plans
B2 Frequency of collection	Quarterly	**B5 Units**	Hours	**C2 Frequency of collection**	Quarterly	**C5 Units**	Hours
B3 Definition	Number of hours recorded for planned maintenance			**C3 Definition**	Number of hours budgeted for planned maintenance		
B6 Notes	-			**C6 Notes**	-		

1.7 EE3.3

Technical indicator description sheet

A1 Indicator short name	**System Average Interruption Frequency Index**	**A2 Alignment**	Improved reliability of electricity service	**A7 Rationale**	Reliability is a key pillar of service delivery. Interruptions result in: revenue loss to the utility; cost of unserved energy which in turn has an impact on the economy; impact on customer satisfaction. Minimising the average interruption frequency for the system is in the financial and service delivery interests of the municipality.
		A3 Results-chain level	Outcome	**A8 Definition**	Key measure from a systems perspective of how often the average customer experiences a sustained interruption over a period of time in minutes.
INDICATOR ASSIGNMENT	EE3.3	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(Sum of (1) Number of customers interrupted by sustained incident x) / (2) Total number of electricity customers
A5 Unit of measurement	Average number of interruptions	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	IEEE Electric Power Distribution Reliability Indices and similar to ISO 37120 Energy indicator 7.6 Average number of electrical interruptions per customer per year
A11 Notes on calculation	Cumulative indicator, i.e. the figure reported for the year should be for the financial year.			**A12 Additional notes**	Only sustained interruptions should be included in this indicator. IEEE defines a sustained interruption as any interruption lasting one minute or more in duration. All municipalities may not have SCADA systems in place for their MV network; they should work towards getting these systems in place. Until such systems are in place, workarounds may need to be utilised (track from when the customer calls in a fault for example). All municipalities should have customer network link diagrams in place. Where this is not the case, the municipality should ensure that these are put in place as this is very important information.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) Number of electricity customers affected by the sustained incident x	**B4 Source**	Municipal systems (perhaps NEPS - Network and Equipment Performance System) and CNL (Customer Network link)	**C1 Data Element**	(2) Total number of electricty customers	**C4 Source**	Municipal Customer & Billing Database
B2 Frequency of collection	Annual	**B5 Units**	Number of customers	**C2 Frequency of collection**	Annual	**C5 Units**	Number of customers

B3 Definition	The number of customers who faced a sustained interruption in their supply during an incident x	**C3 Definition**	Total number of municipal customers that are registered on municipal database for receiving electricity services from the municipality
B6 Notes	Municipal Electricity Operations and Maintenace or Quality of Supply division should be able to provide	**C6 Notes**	Municipal Retail Services

1.8 EE3.4

Technical indicator description sheet

A1 Indicator short name	**Customer Average Interruption Frequency Index**	**A2 Alignment**	Improved reliability of electricity service	**A7 Rationale**	Reliability is a key pillar of service delivery. Interruptions result in: revenue loss to the utility; cost of unserved energy which in turn has an impact on the economy; impact on customer satisfaction. Minimising the average interruption frequency for the customer is in the financial and service delivery interests of the municipality. This indicator is useful to identify chronological trends in the reliability of the system
		A3 Results-chain level	Outcome	**A8 Definition**	The frequency of sustained interruptions for those customers experiencing sustained interruptions
INDICATOR ASSIGNMENT	EE3.4	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Total number of sustained supply interruption incidents that affected customers / (2) Total number of distinct customers interrupted
A5 Unit of measurement	Average number of interruptions	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	IEEE Electric Power Distribution Reliability Indices and similar to ISO 37120 Energy indicator 7.6 Average number of electrical interruptions per customer per year
A11 Notes on calculation	Cumulative indicator, i.e. the figure reported for the year should be for the financial year.			**A12 Additional notes**	Only sustained interruptions should be included in this indicator. IEEE defines a sustained interruption as any interruption lasting one minute or more in duration. All municipalities may not have SCADA systems in place for their MV network; they should work towards getting these systems in place. Until such systems are in place, workarounds may need to be utilised (track from when the customer calls in a fault for example). All municipalities should have customer network link diagrams in place. Where this is not the case, the municipality should ensure that these are put in place as this is very important information.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) Total number of sustained supply interruption incidents that affected customers	**B4 Source**	Municipal systems (perhaps NEPS - Network and Equipment Performance System) and CNL (Customer Network link)	**C1 Data Element**	(2) Total number of distinct electricity customers interrupted	**C4 Source**	Municipal systems (perhaps NEPS - Network and Equipment Performance System) and CNL (Customer Network link)
B2 Frequency of collection	Annual	**B5 Units**	Number of sustained supply interruptions	**C2 Frequency of collection**	Annual	**C5 Units**	Number of customers

B3 Definition	The number of times sustained supply interruptions took place in the municipality that had an impact on customers	**C3 Definition**	The number of customers who faced one or more sustained interruptions in their supply during an incident or incidents
B6 Notes	Municipal electricity Operations and Maintenace or Quality of Supply division should be able to provide	**C6 Notes**	Municipal electricity Operations and Maintenace or Quality of Supply division should be able to provide; Emphasis on distinct customers - thus if a customer faced two outages, he should still be counted only once.

1.9 EE4.12

Technical indicator description sheet							
A1 Indicator short name	**Installed capacity of approved embedded generators on the municipal distribution network**	**A2 Alignment**	Improved energy sustainability	**A7 Rationale**	The municipality encouraging SSEG (small scale embedded generation) among its customer base is a sign that the municipality is evolving its business model as well as embracing the shift to cleaner green energy.		
		A3 Results-chain level	Output	**A8 Definition**	The total capacity of the SSEG installations in the municipal distribution network in mega-volt ampere		
INDICATOR ASSIGNMENT	EE4.12	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Sum of all SSEG installation capacities within municipal distribution network		
A5 Unit of measurement	Mega-volt ampere	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	Aligned to ISO 37120 Energy indicator 7.4 and SDG 7.2.1 and IAEA ECO 13		
A11 Notes on calculation	Once per municipal year.			**A12 Additional notes**	This will only include embedded generators located within the municipal distribution network		
Reporting responsibility	**Applies to Municipal Category**			**Readiness**			
Metro	**Metro**			**Yes**		**Tier 1**	
B1 Data Element	(1) Sum of all SSEG installation capacities among municipal customer base	**B4 Source**	Municipal supplier database or energy trading databases	**C1 Data Element**	-	**C4 Source**	-
B2 Frequency of collection	Annual	**B5 Units**	Mega-volt ampere	**C2 Frequency of collection**	-	**C5 Units**	-
B3 Definition	The total capacity of the SSEG installations in the municipality in mega-volt ampere.			**C3 Definition**	-		
B6 Notes	-			**C6 Notes**	-		

1.10 EE4.4

Technical indicator description sheet

A1 Indicator short name	**Percentage total electricity losses**	**A2 Alignment**	Improved energy sustainability	**A7 Rationale**	The purpose is to measure the percentage loss of potential revenue from Electricity Services through electricity units purchased and generated but not sold as a result of losses incurred through technical constraints, theft (illegal connections), non or inaccurate metering . It is expected that implementation of the free basic service policy is included in the calculation for sale of electricity.		
		A3 Results-chain level	Outcome	**A8 Definition**	Electricity losses have two components: technical and non-technical. Technical losses occur naturally and consist mainly of power dissipation in electricity system components such as transmission and distribution lines, transformers, and measurement systems. Non-technical losses are caused by actions external to the power system and consist primarily of electricity theft, faulty or inaccurate meters, and errors in accounting and record-keeping. Losses is a measure of unaccounted for energy. Thus non-payment is not included as losses.		
INDICATOR ASSIGNMENT	EE4.4	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	((1)Electricity Purchases in kWh) - ((2)Electricity sales in kWh)) / ((1)Electricity Purchases in kWh) x100		
A5 Unit of measurement	Percentage kWh	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	National Treasury - Section 71 reporting, first round BEPP indicators and similar to IAEA ECO 3: Efficiency of energy conversion and distribution		
A11 Notes on calculation	Calculated as at the last day of the financial year under investigation			**A12 Additional notes**	The acceptable norm is between 7% and 10%		

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Electricity Purchases	**B4 Source**	Energy trading databases	**C1 Data Element**	(2) Electricity Sales	**C4 Source**	Customer care and billing databases
B2 Frequency of collection	Annual	**B5 Units**	kWh	**C2 Frequency of collection**	Annual	**C5 Units**	kWh
B3 Definition	Total electricity sourced by the municipality			**C3 Definition**	Electricity sold by the municipality		
B6 Notes	-			**C6 Notes**	-		

2 Environment and Waste

2.1 ENV1.12

Technical indicator description sheet							
A1 Indicator short name	**Percentage of AQ monitoring stations providing adequate data over a reporting year**	**A2 Alignment**	Improved air quality	**A7 Rationale**	The presence of functional monitoring stations within a municipal area is essential to provide information on air quality throughout the municipal area. The presence of non-operational monitoring stations provides an indication of capacity to report and monitor, a key municipality responsibility. Faulty monitoring stations may result in certain areas not being fairly represented in the AQ data.		
		A3 Results-chain level	Output	**A8 Definition**	The proportion of AQ monitoring stations which are sufficiently functional to provide an accurate indication of air quality over a full reporting year in the municipal area. This is currently defined as providing at least 80% of a full years' worth of anticipated data.		
INDICATOR ASSIGNMENT	ENV1.12	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	((1) Number of fully operational AQ monitoring stations / (2) Total AQ monitoring stations within metro) x 100		
A5 Unit of measurement	Percentage AQ stations	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	New, suggested by municipalities		
A11 Notes on calculation	None			**A12 Additional notes**	Agreement is needed from AQO's about definition of "fully operational" monitoring stations, but the intention is to ensure that the air quality in certain areas of the municipality are not underrepresented through data gaps or being completely absent. Additional input from municipalities is needed in terms of what level of data is required to provide a "complete" record of air quality from a particular monitoring station, with acceptable levels of down-time for necessary maintenance, over an annual reporting period.		
Reporting responsibility		**Applies to Municipal Category**				**Readiness**	
Metro		**Metro**		**Yes**		**Tier 2**	
B1 Data Element	(1) Number of fully operational AQ monitoring stations	**B4 Source**	Municipal Air Quality Officer	**C1 Data Element**	(2) Total number of government owned (all spheres) monitoring stations within municipal area	**C4 Source**	Municipal Air Quality Officer
B2 Frequency of collection	Annual	**B5 Units**	Number of AQ monitoring stations	**C2 Frequency of collection**	Annual	**C5 Units**	Number of AQ monitoring stations
B3 Definition	The number of government-owned monitoring stations which provided either continuous or at minimum quarterly information to SAAQIS, and for which there are no significant data gaps over the reporting period. A significant data gap is defined as greater than 20% of missing data for the period in question.			**C3 Definition**	The total number of government owned monitoring stations located within the municipal boundary.		
B6 Notes	-			**C6 Notes**	-		

2.2 ENV1.2

Technical indicator description sheet

A1 Indicator short name	**Number of days where PM2.5 levels exceeded guideline levels**	**A2 Alignment**	Improved air quality	**A7 Rationale**	While air pollution results in adverse environmental and health effects, PM10 and P2.5 (broadly referred to as particulate matter) are a specific source of concern for health reasons. By reducing air pollution levels, the burden of disease from stroke, heart disease, lung cancer, and both chronic and acute respiratory diseases, including asthma, can be reduced. Inhalable particles, or small particulates have been designated as a Group 1 carcinogen. There is a close, quantitive link between exposure to high concentrations of small particulates (both PM10 and PM2.5) and increased mortality or morbidity, both daily and over time. Small particulate pollution have health impacts even at very low concentrations. There are no established safe levels of exposure, so it is worth noting that the national standard is higher than the WHO and EU standard.
		A3 Results-chain level	Outcome	**A8 Definition**	Number of days (per municipal financial year) where the levels of PM2.5 exceed the national standard, in excess of the permitted maximum of 4 exceedances per annual reporting period.
INDICATOR ASSIGNMENT	ENV1.2	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	[(3) Count of the number of daily exceedances where (1) average daily concentrations of PM2,5 > (2) regulated standard for average daily concentrations of PM2.5] - 4; or 0 where the value is negative
A5 Unit of measurement	Number of days	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	New indicator, based on national AQ guidelines standards
A11 Notes on calculation	Number of days (per municipal financial year) where the average levels of PM2.5 exceed the guideline national standard over a 24-hour period. The indicator applies to each day were an average of monitoring sites (assuming multiple monitoring sites per metro) exceed the levels of PM2.5 for that day. There should not be a double-counting of days where multiple monitoring sites average the PM2.5 standard on the same day.			**A12 Additional notes**	Measurement of PM2.5 requires more sensitive measurement tools, which do not appear to be in use across all cities in SA yet. However, where there are measurement problems, it is possible to estimate PM2.5 levels from PM10 levels. The national standard was promulgated in Gazette 35463, in 2012. The annual guideline levels have not been used in this case, to provide an indication of acute incidences, while chronic air pollution is picked up in the MAQI. ISO8.1 is a sub-component of this indicator.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Average daily concentrations of PM2.5	**B4 Source**	Monitoring stations located within the municipality area. Ambient air quality data is available from the South African Air Quality Information System (www.saaqis.org.za), which contains data from all the available monitoring stations.	**C1 Data Element**	(2) Standard for the concentration of PM2.5 over a 24 hour averaging period	**C4 Source**	Gazette 35463, 29 June 2012
B2 Frequency of collection	Daily	**B5 Units**	µg/m3	**C2 Frequency of collection**	n/a	**C5 Units**	µg/m3

B3 Definition	The mean 24-hour concentrations of PM2.5 over the period of a year, based on observations from continuous monitoring stations reporting to SAAQIS.			**C3 Definition**	The maximum guideline standard for PM2.5 concentrations averaged over a 24-hour period.		
B6 Notes	Measurement of PM2.5 requires more sensitive measurement tools, which do not appear to be in use across all cities in SA yet. The reference method for the determination of PM2.5 is EN14907 according to Gazette 35463, published 29 June 2012. Appears to be the same as ISO 8.1			**C6 Notes**	The current standard is valid till 2029, after which the more stringent threshold of 25µg/m will come into effect. The WHO recommends guideline maximum levels for PM2.5 of 25µg/m3 for a 24-hour mean (or 10 µg/m3 annual mean).		
D1 Data Element	(3) Count of the number of days where the 24-hour mean > guideline of 40 µg/m3	**D4 Source**	Monitoring stations available within the municipal area capable of measuring PM2.5 or PM10 (which can be converted into PM2.5 using approved methodologies).	**E1 Data Element**	-	**E4 Source**	-
D2 Frequency of collection	Daily	**D5 Units**	Number of days	**E2 Frequency of collection**	-	**E5 Units**	-
D3 Definition	Number of days (per municipal financial year) where the levels of PM2.5 exceed the national standard.			**E3 Definition**	-		
D6 Notes	-			**E6 Notes**	-		

2.3 ENV1.3

Technical indicator description sheet

A1 Indicator short name	**Percentage of households experiencing a problem with noise pollution**	**A2 Alignment**	Improved air quality	**A7 Rationale**	Most municipalities have by-laws regulating acceptable levels of noise and the periods of time when loud noise is acceptable. Sustained periods of loud or unnatural noise from industry is disruptive to the environment. The indicator seeks to use the number of households reportedly affected by noise pollution during survey to provide an indication of the extent of noise pollution within the municipality.
		A3 Results-chain level	Outcome	**A8 Definition**	The percentage of households that report "Excessive noise/noise pollution" as an environmental problem experienced in their community.
INDICATOR ASSIGNMENT	ENV1.3	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Number of households experiencing noise pollution/ (2) Total number of households in the municipality X 100
A5 Unit of measurement	Percentage of households experiencing a problem with noise pollution	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	ISO 8.7
A11 Notes on calculation	None			**A12 Additional notes**	Technically the indicator would be better placed under a separate outcome because noise pollution is not an air quality issue. Nevertheless, it is included here for the time being.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
National	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of households experiencing noise pollution	**B4 Source**	StatsSA General Household Survey	**C1 Data Element**	(2) Total number of households in the municipality	**C4 Source**	StatsSA General Household Survey
B2 Frequency of collection	Annual	**B5 Units**	Number of households	**C2 Frequency of collection**	Annual	**C5 Units**	Number of households
B3 Definition	The number of households that report "Excessive noise/noise pollution" as an environmental problem experienced in the community.			**C3 Definition**	This is the total number of households within the municipal area of jurisdiction		
B6 Notes	-			**C6 Notes**	The data element is understood to be specific to the survey item used to obtain the data by Statistics South Africa to avoid issues arising from non-response during the survey.		

2.4 ENV2.1

Technical indicator description sheet							
A1 Indicator short name	**Tonnes of municipal solid waste sent to landfill per capita**	**A2 Alignment**	Minimised solid waste	**A7 Rationale**	Many cities generate more solid waste than they can dispose of. Even when municipal budgets are adequate for collection, the safe disposal of collected waste often remains a problem. Open dumping and unsanitary landfills are sometimes the main disposal methods, particularly in lower income cities. Sanitary landfills are only the norm in a limited number of cities worldwide.		
		A3 Results-chain level	Outcome	**A8 Definition**	The percentage of the city's solid waste that is disposed of in licensed (sanitary) landfills		
INDICATOR ASSIGNMENT	ENV2.1	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1)Tonnes of waste disposed of in a licensed landfill / (2) total population		
A5 Unit of measurement	Tonnes	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	Similar to ISO 16.4		
A11 Notes on calculation	None			**A12 Additional notes**	None.		
Reporting responsibility	**Applies to Municipal Category**				**Readiness**		
Metro	**Metro**			**Yes**	**Tier 1**		
B1 Data Element	(1) Tonnes of municipal solid waste disposed of in sanitary/licensed landfills	**B4 Source**	Metro Waste Management Officer	**C1 Data Element**	(2)Total population of the municipality	**C4 Source**	StatsSA Mid-Year Population Estimate
B2 Frequency of collection	Annual	**B5 Units**	Tonnes of solid waste	**C2 Frequency of collection**	Annual	**C5 Units**	Number of people
B3 Definition	Annual tonnes of municipal solid waste disposed of in sanitary/licensed landfills			**C3 Definition**	Estimated population of the municipality in the year		
B6 Notes	-			**C6 Notes**	-		

2.5 ENV2.2

Technical indicator description sheet

A1 Indicator short name	**Tonnes of municipal solid waste diverted from landfill per capita**	**A2 Alignment**	Minimised solid waste	**A7 Rationale**	Many cities generate more solid waste than they can dispose of. Diverting recyclable materials from the waste stream is one strategy for addressing this municipal problem. A proper solid waste system can foster recycling practices that maximises the life cycle of landfills and create recycling micro-economies, and it may help to provide alternative sources of energy that help reduce the consumption of electricity and/or petroleum based fuels.
		A3 Results-chain level	Outcome	**A8 Definition**	The tonnage of the city's solid waste that is recycled at centralised recycling centres, divided by the total population of the municipality. Recycled materials include those materials diverted from the waste stream, recovered and processed into new products following local government permits and regulations (International Solid Waste Association).
INDICATOR ASSIGNMENT	ENV2.2	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	[(1)Tonnes of municipal waste diverted from landfill through municipal facilities] / [(2)total population]
A5 Unit of measurement	Tonnes	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	Similar to ISO 16.3
A11 Notes on calculation	None			**A12 Additional notes**	This may not capture the entire amount of waste diversion in the waste chain, as it does not capture waste diversion via private facilities, but it will reflect the success of municipal efforts with regard to waste under their control.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Tonnes of municipal waste accepted at recycling or material recovery centres	**B4 Source**	Metro Waste Management Officer	**C1 Data Element**	(2)Total population of the municipality	**C4 Source**	StatsSA Mid-Year Population Estimate
B2 Frequency of collection	Annual	**B5 Units**	Tonnes of solid waste	**C2 Frequency of collection**	Annual	**C5 Units**	Number of people
B3 Definition	Total municipal waste diverted from city landfill facilities through city waste diversion activities			**C3 Definition**	Estimated population of the municipality in the year		
B6 Notes	-			**C6 Notes**	-		

2.6 ENV3.1

Technical indicator description sheet

A1 Indicator short name	**Percentage of households with basic refuse removal services or better**	**A2 Alignment**	Increased access to refuse removal	**A7 Rationale**	the percentage of households served by regular solid waste collection is an indicator of city health, cleanliness and quality of life, and is recognised as a right within the South Africa Constitution
		A3 Results-chain level	Outcome	**A8 Definition**	Households with basic refuse removal services or better (defined as a minimum of once weekly collection as defined in the Back to Basics framework) as a percentage of total municipal households
INDICATOR ASSIGNMENT	ENV3.1	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Number of households receiving at least once-weekly refuse removal services / (2) Total number of households
A5 Unit of measurement	Percentage of households	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	CoGTA Back to Basics. ISO 6.1 is similar, but reports on a population basis. Stats SA GHS info reports on a household basis.
A11 Notes on calculation	None			**A12 Additional notes**	The wording of both the GHS and Back to Basics is ambiguous about the technical definition of "once weekly collection", which provides discretion for the method of collection from households based on the context.

Reporting responsibility	**Applies to Municipal Category**	**Readiness**
National	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of households who have their refuse removed at least once a week.	**B4 Source**	StatsSA General Household Survey	**C1 Data Element**	(2) Total number of households in the municipality	**C4 Source**	StatsSA General Household Survey
B2 Frequency of collection	Annual	**B5 Units**	Number of households	**C2 Frequency of collection**	Annual	**C5 Units**	Number of households
B3 Definition	Basic refuse removal is based on the definition provided in the Back to Basics framework. This is aligned with the number of households who have their refuse removed at least once a week, as defined by the StatsSA General Household Survey.			**C3 Definition**	This is the total number of households (of all types - formal, informal, and traditional) within the municipal area of jurisdiction		
B6 Notes	As a consistent information source is available, metros are encouraged to use the GHS data rather than their own customer level information, where definitions and methodologies may differ between municipalities.			**C6 Notes**	The data element is understood to be specific to the survey item used to obtain the data by Statistics South Africa to avoid issues arising from non-response during the survey.		

2.7 ENV3.11

Technical indicator description sheet							
A1 Indicator short name	**Percentage of known informal settlements receiving integrated waste handling services**	**A2 Alignment**	Increased access to refuse removal	**A7 Rationale**	Solid waste collection is one of the core services that local government provides, and is a key element in both creating decent living conditions, and maintaining a healthy environment. It is not possible to provide formal services to all informal dwellings, as this many encourage the development of illegal settlements. This indicator only reports on the presence of services provided to "recognised" informal settlements.		
		A3 Results-chain level	Output	**A8 Definition**	The proportion of recognised informal settlements within the metropolitan area which are receiving integrated refuse collection and cleaning services		
INDICATOR ASSIGNMENT	ENV3.11	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Number of informal settlements receiving integrated waste services / (2) Total number of recognised informal settlements		
A5 Unit of measurement	Percentage of informal settlements	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	New- Proposed by metros		
A11 Notes on calculation	End of the reporting period			**A12 Additional notes**	0		
Reporting responsibility		**Applies to Municipal Category**				**Readiness**	
Metro		**Metro**		**Yes**		**Tier 1**	
B1 Data Element	(1) The number of recognised informal settlements receiving basic waste services	**B4 Source**	Metro Waste Management Office	**C1 Data Element**	(2) The total number of recognised informal settlements	**C4 Source**	Metro
B2 Frequency of collection	Annual	**B5 Units**	Number of informal settlements	**C2 Frequency of collection**	Annual	**C5 Units**	Number of informal settlements
B3 Definition	The number of recognised informal settlements within the metropolitan area which are receiving integrated refuse collection and cleaning services			**C3 Definition**	Settlements which have been recognised by municipal authorities as informal.		
B6 Notes	-			**C6 Notes**	-		

2.8 ENV4.11

Technical indicator description sheet

A1 Indicator short name	**Percentage of biodiversity priority area within the metro**	**A2 Alignment**	Conserved and enhanced biodiversity	**A7 Rationale**	The presence of natural or near-natural areas, aslo defined here as biodiversity priority areas, is used as a proxy for species richness, which is a costly and time-consuming indicator to develop data for. This proposed indicator measures the total area of available habitats across a municipal area, irrespective of condition. The intention is to capture the pace at which the built urban environment is replacing undeveloped land capable of supporting biological functioning.
		A3 Results-chain level	Output	**A8 Definition**	Proportional share of land cover categories aggregated to relate to biological priority areas within the municipality, relative to the total municipal area. It indicates the presence of available habitats across a municipal area important for maintaining ecological processes, expressed in ha. A decline over time indicates a loss of land supporting biodiversity and local ecosystems. Biodiversity priority areas, or areas of high biodiversity importance, are defined by SANBI (2016) as "Natural or semi-natural areas in the landscape or seascape that are important for conserving a representative sample of ecosystems and species, for maintaining ecological processes, or for the provision of ecosystem services."
INDICATOR ASSIGNMENT	ENV4.11	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Total land area in hectares classified as "biodiversity priority areas" at the end of the current reporting period / (2) Total municipal area in hectares * 100
A5 Unit of measurement	Percentage of land in hectares	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	Similar to SACN 144, Open Space, based on Ethekwini Indicator, and to data provided by SANBI's LUDS BGIS database information. http://bgis.sanbi.org/LUDS/Home/Summaries
A11 Notes on calculation	Calculated at the end of the period, comparing the change in the total area remaining as open space over the year in review.			**A12 Additional notes**	The intent is to capture all pockets of undeveloped land which can support biodiversity, irrespective of condition or status. The intention is to capture the pace at which the built urban environment is replacing undeveloped land capable of supporting biological functioning. For this reason, artificial natural environments may be included where relevant (such as an artificial wetland which has been created). ENV 4.11 is similar to ISO 19.1 Green area (ha) per 100 000 population. This however has a recreation focus, and includes only publicly accessible land. The intention of ENV 4.11 is to capture transformation of land from a biodiversity perspective over time, or loss of green space capable of supporting biological function to urban development.

Reporting responsibility		Applies to Municipal Category				Readiness	
Metro		Metro		Yes		Tier 1	
B1 Data Element	(1) Total area of biodiversity priority areas	**B4 Source**	Municipal SDF, and its underlying strategic environmental assessment as required by SPLUMA. Ecosystem/vegetation type definition support available from SANBI, along with estimates of natural land in their LUDS tool. http://bgis.sanbi.org/LUDS/Home/Summaries	**C1 Data Element**	(2) Total municipal area	**C4 Source**	Municipal GIS
B2 Frequency of collection	Annual	**B5 Units**	ha	**C2 Frequency of collection**	n/a	**C5 Units**	ha
B3 Definition	A change in the stock of all "biodiversity priority areas" in the municipality which is capable of supporting ecological processes. As defined by SANBI 2016, this category includes the following categories: protected areas, critically endangered and endangered ecosystems, CBAs, ESA, FEPAs, strategic water source areas, flagship free-flowing rivers, priority estuaries, focus areas for land-based protected area expansion. Most notably it includes land ear-marked for development but which is not yet transformed.			**C3 Definition**	The total area falling within the boundaries of the municipality, expressed in ha		
B6 Notes	This is expected to be constant, unless there is a change in the municipal boundary			**C6 Notes**	This is expected to be constant, unless there is a change in the municipal boundary.		

2.9 ENV4.21

Technical indicator description sheet

A1 Indicator short name	**Percentage of biodiversity priority areas protected**	**A2 Alignment**	Conserved and enhanced biodiversity	**A7 Rationale**	This indicator captures the proportion of "biodiversity priority area" land which has been identified through municipal planning processes as being of high biodiversity value and is protected through some mechanism.
		A3 Results-chain level	Output	**A8 Definition**	The proportion of land identified through municipal strategic environmental assessments and EMFs as biodiversity priority areas, which is protected through some mechanism. Mechanisms may include stewardship agreements, conventional protected areas, & biodiversity agreements, among others.
INDICATOR ASSIGNMENT	ENV4.21	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Area of biodiversity priority areas in hectares which is protected / (2) Total area of land in hectares which is identified as a biodiversity priority area x 100
A5 Unit of measurement	Percentage of land in hectares	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	Agreed as part of Circular No.88 process
A11 Notes on calculation	0			**A12 Additional notes**	Additional discussion is required regarding the types of protection which should be included, but is intended to be broader than formal "protected area" status. The mechanism should provide some type of legally binding protection.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Area of priority biodiversity area which is protected	**B4 Source**	Municipal SDF, and its underlying strategic environmental assessment as required by SPLUMA.	**C1 Data Element**	(2) Total area identified as a priority biodiversity area	**C4 Source**	Municipal SDF
B2 Frequency of collection	Annual	**B5 Units**	ha	**C2 Frequency of collection**	Annual	**C5 Units**	ha
B3 Definition	Total area identified as a priority biodiversity area which is protected through some mechanism, which may include stewardship agreements, conventional protected areas, & biodiversity agreements as defined in the SANBI 2016 Lexicon of Biodiversity Planning			**C3 Definition**	Total area identified as a priority biodiversity area within the municipal SEA & SDF. As defined by SANBI 2016, this category includes the following categories: protected areas, critically endangered and endangered ecosystems, CBAs, ESA, FEPAs, strategic water source areas, flagship free-flowing rivers, priority estuaries, focus areas for land-based protected area expansion. Most notably it includes land ear-marked for development, but which is not yet transformed.		
B6 Notes	More discussion is required on the type of protection, but this should be immediately achievable.			**C6 Notes**	Biodiversity priority areas include biodiversity core 1 areas (critical biodiversity areas) and core 2 areas (ecological corridors, dune protection zones, river corridors, ecological support areas).		

2.10 ENV5.1

Technical indicator description sheet

A1 Indicator short name	**Recreational water quality**	**A2 Alignment**	Conserved and enhanced coastal resources	**A7 Rationale**	The goal in the management of coastal systems is to keep the resource suitable for all designated uses. The recreational use of coastal marine water can be affected by aesthetic, safety and hygienic concerns. While all are important, the current indicator focusses on human health risks stemming from the presence of microbiological indicator organisms.		
		A3 Results-chain level	Outcome	**A8 Definition**	The percentage of annual recreational water samples taken which met the minimum requirement for recreational water quality, namely sufficient or above.		
INDICATOR ASSIGNMENT	ENV5.1	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Count of water samples which met the threshold criteria / (2) Total number of samples taken in the reporting year X100		
A5 Unit of measurement	Percentage	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	Based on current recreational water quality reporting to DEA: MCM as expressed in https://www.environment.gov.za/sites/default/files/legislations/water_qualityguidelines.pdf		
A11 Notes on calculation	End of reporting period			**A12 Additional notes**	In SA the sufficient or fair category of exposure is considered to be minimum acceptable risk. Poor or unacceptable microbiological samples have more than 185 Enterococci count per 100ml, and over 500 E.Coli count per 100ml.		

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of water samples classified as "sufficient"	**B4 Source**	Metro department responsible for environmental health	**C1 Data Element**	(2) Total number of recreational coastal water quality samples taken annually	**C4 Source**	Metro department responsible for environmental health
B2 Frequency of collection	Will depend on frequency of metro sampling programme, but should at a minimum be once every 2 weeks.	**B5 Units**	Number of water samples	**C2 Frequency of collection**	Will depend on frequency of metro sampling programme, but should at a minimum be once every 2 weeks.	**C5 Units**	Number of water samples
B3 Definition	The total number of water samples which met or exceeded the threshold for "sufficient or fair" water quality. This is defined as meeting the following 3 criteria, (1) having at or below an 8.5% GI illness risk; (2) at or below am Enterococci count of 185 per 100ml; and (3) an E coli count of not more than 500 per 100ml. All 3 criteria have to be met.			**C3 Definition**	The total number of recreational coastal water quality samples taken throughout the municipal jurisdiction over the course of a reporting year.		
B6 Notes	Based on methodology as specified in 2012 "South African water quality guidelines for coastal marine waters, Volume 2: Guidelines for Recreational Use"			**C6 Notes**	Based on methodology as specified in 2012 "South African water quality guidelines for coastal marine waters, Volume 2: Guidelines for Recreational Use"		

3 Fire and emergency services

3.1 FE1.1

Technical indicator description sheet							
A1 Indicator short name	**Number of fire related deaths per 1000 population**	**A2 Alignment**	Mitigated effects of emergencies	**A7 Rationale**	One of the many measures used to demonstrate the effectiveness of a city's fire services is the number of fire related deaths that occur on an annual basis.		
		A3 Results-chain level	Outcome	**A8 Definition**	Incidence of reported deaths attributed to fire or fire-related causes (e.g. smoke inhalation) normalised per population.		
INDICATOR ASSIGNMENT	FE1.1	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Number of reported deaths attributed to fire or fire-related causes / (2) Total population of the municipality * 1000		
A5 Unit of measurement	Ratio of deaths to population	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	ISO 10.2		
A11 Notes on calculation	None			**A12 Additional notes**	None		
Reporting responsibility	**Applies to Municipal Category**					**Readiness**	
Shared	**Metro**			**Yes**		**Tier 2**	
B1 Data Element	(1) Number of reported deaths attributed to fire or fire-related causes	**B4 Source**	Municipal Fire Department	**C1 Data Element**	(2)Total population of the municipality	**C4 Source**	StatsSA Mid-Year Population Estimate
B2 Frequency of collection	Annual	**B5 Units**	Deaths	**C2 Frequency of collection**	Annual	**C5 Units**	Number of people
B3 Definition	The number of deaths reported where the official cause of death was noted as fire or fire related causes (e.g. smoke inhalation).			**C3 Definition**	Total population of the municipality in the year.		
B6 Notes	None			**C6 Notes**	None.		

3.2 FE1.11

Technical indicator description sheet

A1 Indicator short name	**Percentage compliance with the required attendance time for structural firefighting incidents**	**A2 Alignment**	Mitigated effects of emergencies	**A7 Rationale**	This indicator measures the overall compliance of the municipality to meet the average attendance time of 14 minutes for structural fire incidents in urban areas from time of call to time of attendance at least 75% or more of the time as required for a Category 1 Fire Brigade Service as stipulated in SANS 10090. The average response time (in minutes and seconds) it takes a fire department to respond to an initial distress call is an indicator of how protected a city's residents are from fires and related emergencies.
		A3 Results-chain level	Output	**A8 Definition**	Structural fire incidents are defined as incidents of fire outbreaks in habitable formal structures (buildings that have approved building plans) and habitable informal structures (informal residential dwellings where no approved building plans exist). The indicator measures the percentage of times that these incidents receive a response within the 14 minute standard. This measure of the attendance time is the difference between the time of call (the time an official call or notice is received at the official call or reporting centre) and the arrival time (refers to the time captured for the first arriving firefighting response unit regardless from where dispatched or regardless of order of dispatch). The indicator therefore measures the number of all structural firefighting incidents where the attendance time was 14 minutes or less as a percentage of all structural firefighting incidents. • Attendance time is the difference between the time of call and the time of arrival of the first arriving firefighting response unit at the given address of the incident, (i.e.) Attendance Time = Time of arrival at given address –s- Time Call Received by ECC personnel and equipment in minutes and seconds for the year (numerator) divided by the number of fire department responses in the same year (denominator).
INDICATOR ASSIGNMENT	FE1.11	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Number of structural fire incidents where the attendance time was less than 14 minutes / (2) Total number of calls for structural fire incidents received *100
A5 Unit of measurement	Percentage of incidents	**A6 Frequency of reporting**	Quarterly	**A10 Indicator origin**	Similar to ISO 10.6
A11 Notes on calculation	The indicator should be reported as a cumulative average value for a quarter. Annually, all incidents over the four quarters should be aggregated to reflect an annual average value.			**A12 Additional notes**	SANS 10090 refers to the South African National Standard on Community Protection against Fire

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) Number of structural fire incidents where the attendance time was less than 14 minutes	**B4 Source**	Municipal Fire Department	**C1 Data Element**	(2) Total number of distress calls for structural fire incidents received	**C4 Source**	Municipal Fire Department / Call Centre
B2 Frequency of collection	Quarterly	**B5 Units**	Structural fire incidents	**C2 Frequency of collection**	Quarterly	**C5 Units**	Distress calls
B3 Definition	A simple count of the number of structural fire incidents where the difference between the time of call and the arrival time was 14 minutes or less.			**C3 Definition**	Simple count of the total number of structural fire incidents received at the call centre in the period. This refers only to those incidents involving habitable structures within the urban edge.		
B6 Notes	-			**C6 Notes**	Prank calls or hoaxes should be excluded as well as multiple calls for the same incidents.		

3.3 FE1.12

Technical indicator description sheet

A1 Indicator short name	**Number of full-time firefighters per 1000 population**	**A2 Alignment**	Mitigated effects of emergencies	**A7 Rationale**	Fire response is one of the fundamental services that all cities provide in its role of protecting life and property of its citizens. This indicator is a proxy for the extent to which the resourcing of this function is appropriate to service a city's needs normalised for its population. It is measured on the assumption that the full-time firefighting capacity of a municipality is adequately resourced and distributed appropriately to service the municipal area. These are not assumptions that can be tested via the indicator, but would be the domain of evaluation while the indicator is an output proxy for the firefighting service of a municipality.
		A3 Results-chain level	Output	**A8 Definition**	The total number of paid full-time firefighters employed by the municipality normalised to the population of the municipality. This excludes reservists or part-time firefighters.
INDICATOR ASSIGNMENT	FE1.12	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Total number of full-time firefighters employed by the municipality / (2) Total municipal population * 1000
A5 Unit of measurement	Ratio of firefighters to population	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	ISO 10.1
A11 Notes on calculation	None			**A12 Additional notes**	None

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Shared	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) Total number of full-time firefighters employed by the municipality	**B4 Source**	Municipal Fire Department	**C1 Data Element**	(2)Total population of the municipality	**C4 Source**	StatsSA Mid-Year Population Estimate
B2 Frequency of collection	Annual	**B5 Units**	Firefighters	**C2 Frequency of collection**	Annual	**C5 Units**	Number of people
B3 Definition	The total number of paid full-time firefighters employed by the municipality at the end of the reporting period.			**C3 Definition**	Estimated population of the municipality in the year		
B6 Notes	None			**C6 Notes**	None.		

4 Good Governance

4.1 GG1.1

Technical indicator description sheet							
A1 Indicator short name	**Percentage of municipal skills development levy recovered**	**A2 Alignment**	Improved municipal capability	**A7 Rationale**	The percentage of the municipal skills development levy recovered is a proxy indicator of the successful throughput of municipal staff (permanent and contract) and councillors through on-going skills and development training and courses by the municipality. It is indicative of the municipal spend towards building staff and councillor capability and fostering lifelong learning.		
		A3 Results-chain level	Outcome	**A8 Definition**	The indicator is a measure of the R-value of the municipal skills development levy recovered for the financial year as a percentage of the total municipal skills development allocation which the municipality could have claimed.		
INDICATOR ASSIGNMENT	GG1.1	**A4 Back to Basics pillar**	Building capable local government institutions	**A9 Indicator Formula**	(1) R-value of municipal skills development levy recovered/ (2) R-value of the total qualifying value of the municipal skills development levy *100		
A5 Unit of measurement	Percentage of R-value	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	CoGTA Departmental Consultations		
A11 Notes on calculation	None			**A12 Additional notes**	There may be a recovery lag that can only be reported upon later.		
Reporting responsibility		**Applies to Municipal Category**				**Readiness**	
Metro		**Metro**		**Yes**		**Tier 1**	
B1 Data Element	(1) R-value of municipal skills development levy recovered	**B4 Source**	Municipal Huma Resource Department	**C1 Data Element**	(2) R-value of the total qualifying value of the municipal skills development levy	**C4 Source**	Municipal Huma Resource Department
B2 Frequency of collection	Annual	**B5 Units**	Rands	**C2 Frequency of collection**	Annual	**C5 Units**	Rands
B3 Definition	The amount of municipal skills development levy recovered by the municipality in R-value.			**C3 Definition**	The amount of municipal skills development levy that could have been claimed by the municipality in R-value according to the terms of the levy		
B6 Notes	From this amount the municipality must be able to derive and report on the number of individuals who benefitted from this.			**C6 Notes**	None.		

4.2 GG1.2

Technical indicator description sheet

A1 Indicator short name	**Top management stability**	**A2 Alignment**	Improved municipal capability	**A7 Rationale**	The stability of top management is central to the ability of a municipality to perform well. This does not mean there should not be exits, but that exits should happen in a planned way, ideally ensuring that there is a seamless handover to fully appointed successors. Extended period of acting arrangements are not desired and negatively treated in this indicator.
		A3 Results-chain level	Outcome	**A8 Definition**	Top management is defined as Section 56 and 57 Managers, as per the Municipal Systems Act (2000). This refers to the number of working days in which all of the top management positions in the municipality are filled by full-time employees not in an acting position.
INDICATOR ASSIGNMENT	GG1.2	**A4 Back to Basics pillar**	Building capable local government institutions	**A9 Indicator Formula**	((1)Total sum of standard working days, in the reporting period, that each S57 post was occupied by a fully appointed official (not suspended or vacant) with a valid signed contract and performance agreement)/ ((2)Aggregate working days for all S57 posts) *100
A5 Unit of measurement	Percentage of working days	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	New
A11 Notes on calculation	None			**A12 Additional notes**	Where a new S56 or 57 post has been created this should be reflected in a pro-rata treatment of the reporting period. This indicator could be run just for the MM position as well.

Reporting responsibility	**Applies to Municipal Category**	**Readiness**
Metro	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) Total sum of standard working days, in the reporting period, that each S56 and S57 post was occupied by a fully appointed official (not suspended or vacant) with a valid signed contract and performance agreement)	**B4 Source**	Municipal Human Resources Department	**C1 Data Element**	(2) Aggregate working days for all S56 and S57 Posts in the reporting period	**C4 Source**	Municipal Human Resources Department
B2 Frequency of collection	Annual	**B5 Units**	Working days	**C2 Frequency of collection**	Annual	**C5 Units**	Working days
B3 Definition	S56 and S57 posts are defined in Municipal Systems Act (2001). Fully appointed does not include posts that either unfilled, vacant or where the incumbent is under suspension or extended sick leave (more than 2 weeks). Contracts and performance agreements are defined in the Municipal Systems Act.			**C3 Definition**	The sum of all standard working days (e.g. not weekends or public holidays) in a year for all S56 and S57 posts.		
B6 Notes	Where an official is away from duty while travelling for work, or is utilising annual leave, and another official is acting in their position, the post can still be deemed to be 'fully appointed and occupied".			**C6 Notes**	The standard working days for each post are aggregated. If a new post is created during the reporting period or eliminated in that period, the working days for that post will be less than the standard working days.		

4.3 GG1.21

Technical indicator description sheet

A1 Indicator short name	**Staff vacancy rate**	**A2 Alignment**	Improved municipal capability	**A7 Rationale**	This indicator gives an indication of the municipality's progress towards building capable local government. It shows the extent to which the required staff complement in the organisational structure is met.		
		A3 Results-chain level	Output	**A8 Definition**	The number of unfilled posts in the municipal organisational structure as a percentage of the total number of posts in the municipality's organisational structure.		
INDICATOR ASSIGNMENT	GG1.21	**A4 Back to Basics pillar**	Building capable local government institutions	**A9 Indicator Formula**	((1)The number of employees on the approved organisational structure)-((2) The number of permanent employees in the municipality))/((1)The number of employees on the approved organisational structure)*100		
A5 Unit of measurement	Percentage of posts	**A6 Frequency of reporting**	Quarterly	**A10 Indicator origin**	CoGTA Back to Basics monthly reports		
A11 Notes on calculation	Whether S56 or S57 posts should be included in the vacancy rate should be informed by whether they are considered approved posts on the organisational structure with permanent employees (not on fixed-term contracts).			**A12 Additional notes**	If a municipality lacks an approved organisational structure there is potential for this to be manipulated. The municipality should have an approved organisational structure as a pre-requisite for this indicator.		

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) The number of employees on the approved organisational structure	**B4 Source**	Municipal Human Resources Department	**C1 Data Element**	(2)The number of permanent employees in the municipality	**C4 Source**	Municipal Human Resources Department
B2 Frequency of collection	Quarterly	**B5 Units**	Employees	**C2 Frequency of collection**	Quarterly	**C5 Units**	Employees
B3 Definition	The number of employees that make up the organisational structure approved by the council of the municipality			**C3 Definition**	The number of employees on permanent contract employed by the municipality appearing on the approved organisational structure.		
B6 Notes	Available from the CoGTA Monthly Back to Basic Questionnaire			**C6 Notes**	Informed by the COGTA Back 2 Basics questionnaire.		

4.4 GG2.1

Technical indicator description sheet

A1 Indicator short name	**Percentage of ward committees that are functional (meet four times a year, are quorate, and have an action plan)**	**A2 Alignment**	Improved municipal responsiveness	**A7 Rationale**	This indicator shows the level to which the city supports ward committees, how functional formal mechanisms for public participation are in the municipality, and that they are active and properly constituted.
		A3 Results-chain level	Outcome	**A8 Definition**	The percentage of ward committees that are deemed to be 'functional' out of all wards in the municipality. Functional is defined as- they have an agreed annual ward committee action plan by end of Q1 of the year under review and had at least four quorate meetings in that year.
INDICATOR ASSIGNMENT	GG2.1	**A4 Back to Basics pillar**	Putting people first	**A9 Indicator Formula**	((1)Functional ward committees)/((2)Total number of wards)*100
A5 Unit of measurement	Percentage of ward committees	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	CoGTA Back to Basics
A11 Notes on calculation	None			**A12 Additional notes**	No additional notes

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) Functional ward committees	**B4 Source**	Municipal Public Participation Unit	**C1 Data Element**	(2) Total number of wards	**C4 Source**	Municipal Public Participation Unit
B2 Frequency of collection	Annual	**B5 Units**	Number of ward committees	**C2 Frequency of collection**	Annual	**C5 Units**	Number of wards
B3 Definition	The number of ward committees operating in the municipality that hold at least four quorate meetings per year and having a ward committee action plan			**C3 Definition**	The total number of wards for which ward committees should be constituted in the municipality		
B6 Notes	-			**C6 Notes**	-		

4.5 GG2.11

Technical indicator description sheet

A1 Indicator short name	**Percentage of ward committees with 6 or more ward committee members (excluding the ward councillor)**	**A2 Alignment**	Improved municipal responsiveness	**A7 Rationale**	This indicator demonstrates the extent to which ward committees are active in terms of filled representation, which is a proxy indicator for the level of community engagement in the public participation system via a formal structure such as the ward committee. The indicator shows the percentage of ward committees that have filled at least 60% of the seats available to them.
		A3 Results-chain level	Output	**A8 Definition**	The percentage of ward committees that had 6 or more members, excluding the ward councillor, as a proportion of the total number of wards at the last day of the reporting period.
INDICATOR ASSIGNMENT	GG2.11	**A4 Back to Basics pillar**	Putting people first	**A9 Indicator Formula**	((1)The number of ward committees with 6 or more members)/((2)Total number of wards)*100
A5 Unit of measurement	Percentage of ward committees	**A6 Frequency of reporting**	Quarterly	**A10 Indicator origin**	Proposed based on CoGTA department consultations
A11 Notes on calculation	The indicator should be reported as at the last day of the reporting period of each quarter. The annual performance is therefore the same as the performance for the fourth quarter.			**A12 Additional notes**	No additional notes

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) Total number of ward committees with 6 or more members	**B4 Source**	Municipal Public Participation Unit	**C1 Data Element**	(2) Total number of wards	**C4 Source**	Municipal Public Participation Unit
B2 Frequency of collection	Quarterly	**B5 Units**	Number of ward committees	**C2 Frequency of collection**	Quarterly	**C5 Units**	Number of wards
B3 Definition	The total number of ward committees in the municipality with six or more members			**C3 Definition**	The total number of wards for which ward committees should be constituted in the municipality		
B6 Notes	No additional notes			**C6 Notes**	-		

4.6 GG2.12

Technical indicator description sheet

A1 Indicator short name	**Percentage of wards where at least one councillor-convened community meeting was held**	**A2 Alignment**	Improved municipal responsiveness	**A7 Rationale**	The indicator provides an indication of the extent of wards where at least the minimum opportunity for public participation with the elected representative was provided by a community meeting. Each ward councillor should convene at least one quarterly meeting in his/her ward as per the provisions of the Municipal Systems Act and the Councillor Code of Conduct.		
		A3 Results-chain level	Output	**A8 Definition**	The wards in the municipality in which at least one community meeting has been convened by a councillor. Community meetings refer to any public meeting for which public notice is given, held in the councillor's ward, and at which the ward councillor convenes the meeting.		
INDICATOR ASSIGNMENT	GG2.12	**A4 Back to Basics pillar**	Putting people first	**A9 Indicator Formula**	((1) Number of wards where at least one councillor-convened community meeting was held / (2) Number of wards in the municipality) * 100		
A5 Unit of measurement	Meetings	**A6 Frequency of reporting**	Quarterly	**A10 Indicator origin**	According to the Councillor Code of Conduct in the Municipal Systems Act, 32 of 2000, ward councillors are expected to interact through report back meetings with the community. The legislation states that "councillors must be accountable to local communities and report back at least quarterly to constituencies on council matters, including the performance of the municipality in terms of established indicators". CoGTA Back to Basics		
A11 Notes on calculation	Non-cumulative indicator. The results should be reported per quarter.			**A12 Additional notes**	No additional notes		

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 2**

B1 Data Element	((1) Number of wards where at least one councillor-convened community meeting was held	**B4 Source**	Municipal Public Participation Unit	**C1 Data Element**	(2) Total number of wards	**C4 Source**	Municipal Public Participation Unit
B2 Frequency of collection	Quarterly	**B5 Units**	Number of wards	**C2 Frequency of collection**	Quarterly	**C5 Units**	Wards
B3 Definition	The total number of wards where the ward councillor has convened at least one quarterly community meeting. Community meetings need to be held within the ward, by the ward councillor with a public notice period.			**C3 Definition**	The number or wards in the municipality		
B6 Notes	No additional notes			**C6 Notes**	No additional notes		

4.7 GG2.2

Technical indicator description sheet

A1 Indicator short name	**Attendance rate of municipal council meetings by all identified Traditional Leaders**	**A2 Alignment**	Improved municipal responsiveness	**A7 Rationale**	Where Traditional Leaders are officially recognised in terms of official traditional structures identified in the Municipal Structures Act of 1998, their attendance and participation in Council meetings is an indication of municipal responsiveness to their leadership and involvement in civic affairs.
		A3 Results-chain level	Outcome	**A8 Definition**	The number of officially identified and municipally acknowledged Traditional Leaders resident with the municipal area in attendance at Council meetings. Identified traditional leaders refers to those leaders within identified traditional structures in terms of the Municipal Structures Act.
INDICATOR ASSIGNMENT	GG2.2	**A4 Back to Basics pillar**	Putting people first	**A9 Indicator Formula**	(1) Sum of the total number of Traditional Leaders in attendance at Council meetings/ ((2) The total number of Traditional Leaders within the municipality * (3) Total number of Council meetings) *100
A5 Unit of measurement	Percentage attendance rate	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	Proposed CoGTA departmental consultations
A11 Notes on calculation	None			**A12 Additional notes**	No additional notes

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) Sum of the total number of Traditional Leaders in attendance at Council meetings	**B4 Source**	Municipal Council Meeting Register	**C1 Data Element**	(2) The total number of Traditional Leaders within the municipality	**C4 Source**	Municipal Council Meeting Register
B2 Frequency of collection	Annual	**B5 Units**	Number of Traditional Leaders	**C2 Frequency of collection**	Annual	**C5 Units**	Number of Traditional Leaders
B3 Definition	The sum of the total number of Traditional Leaders (from identified traditional leadership structures) in attendance at each of the Council meetings convened during the period of time			**C3 Definition**	The total number of traditional leaders officially identified and acknowledged by the municipality in terms of the Municipal Structures Act of 1998.		
B6 Notes	None			**C6 Notes**	None		

D1 Data Element	(3) Total number of Council meetings	**D4 Source**	Municipal Council Meeting Register	**E1 Data Element**	-	**E4 Source**	-
D2 Frequency of collection	Annual	**D5 Units**	Council meetings	**E2 Frequency of collection**	-	**E5 Units**	-
D3 Definition	The number of Council meetings held in the period of data collection.			**E3 Definition**	-		
D6 Notes	None			**E6 Notes**	-		

4.8 GG3.1

Technical indicator description sheet

A1 Indicator short name	**Audit Opinion**	**A2 Alignment**	More effective city administration	**A7 Rationale**	The Audit Opinion of the Auditor-General gives an indication of the credibility of the municipal administration and provides assurance of financial reporting and adherence to governance and administrative legislation.
		A3 Results-chain level	Outcome	**A8 Definition**	The Audit Opinion is defined by the Auditor-General. It is given across a qualitative, ordinal scale including: Unqualified with no findings; Unqualified with findings; Qualified with findings; Adverse with findings;and Disclaimed with findings. For those who have not completed the process 'Outstanding audits' are recorded.
INDICATOR ASSIGNMENT	GG3.1	**A4 Back to Basics pillar**	Good governance	**A9 Indicator Formula**	(1) Audit opinion as defined by the Office of the Auditor-General across a qualitative scale
A5 Unit of measurement	Qualitative audit result	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	Office of the Auditor-General
A11 Notes on calculation	As at the end of the previous financial year.			**A12 Additional notes**	The data retrieved for this indicator will be one year delayed due to the length of time it takes to undergo the audit process

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
National	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Audit opinion	**B4 Source**	Office of the Auditor-General Municipal Reports	**C1 Data Element**	-	**C4 Source**	-
B2 Frequency of collection	Annual	**B5 Units**	N/A	**C2 Frequency of collection**	-	**C5 Units**	-
B3 Definition	As defined by the Office of the Auditor-General			**C3 Definition**	-		
B6 Notes	The data will be the audited figures for the previous financial year			**C6 Notes**	-		

4.9 GG3.11

Technical indicator description sheet

A1 Indicator short name	**Number of repeat audit findings**	**A2 Alignment**	More effective city administration	**A7 Rationale**	The 'basics' in municipal governance include compliance with legislation. The AG annually indicates in the findings on compliance whether municipalities are complying with the financial legislation and regulations – it is assumed that when a municipality cannot even comply with the financial legislation, it will also not comply with other legislation applicable to municipalities. By tracking the number of "repeat" findings, a municipality needs to account for why it allows its administration to continue to repeat non-compliant practices year on year. This includes all findings, both financial and non-financial.
		A3 Results-chain level	Output	**A8 Definition**	"Repeat" findings refer to those findings which have persisted from one year of reporting to the next. These are identified as repeat findings by the Auditor-General on the following administrative areas including but not limited to: i) annual financial statements and annual report ii) Strategic planning and performance iii) Consequence management iv) Human Resource management
INDICATOR ASSIGNMENT	GG3.11	**A4 Back to Basics pillar**	Good governance	**A9 Indicator Formula**	(1) Simple count of the number of "repeat" findings itemised by the in the Auditor-General's report of each municipality.
A5 Unit of measurement	Number of audit findings	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	Office of the Auditor-General
A11 Notes on calculation	As at the end of the previous financial year.			**A12 Additional notes**	The desired target is No Finding or "addressed" finding.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
National	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Simple count of the number of "repeat" findings itemised by the Auditor-General in the audit report.	**B4 Source**	Office of the Auditor-General Municipal Reports	**C1 Data Element**	-	**C4 Source**	-
B2 Frequency of collection	Annual	**B5 Units**	Repeat findings	**C2 Frequency of collection**	-	**C5 Units**	-
B3 Definition	"Repeat" findings by the Auditor-General on the following administrative areas including but not limited to: i) annual financial statements and annual report; ii) Strategic planning and performance iii) Consequence management; iv) Human Resource management			**C3 Definition**	-		
B6 Notes	None			**C6 Notes**	-		

4.10 GG3.12

Technical indicator description sheet

A1 Indicator short name	**Percentage of councillors who have declared their financial interests**	**A2 Alignment**	More effective city administration	**A7 Rationale**	According to the Councillor Code of Conduct in the Municipal Systems Act, 32 of 2000, all councillors must within 60 days of election or appointment provide a declaration of interests to the municipal manager in writing. Any change in the nature or detail of the financial interests of a councillor must be declared to the municipal manager annually. Good practice in this regard entails an annual declaration of interest by all councillors. This provides an updated indication of whether municipalities are at least aware of potential conflicts of interest.
		A3 Results-chain level	Output	**A8 Definition**	The percentage of all councillors that have declared their financial interests for the financial year being reported against.
INDICATOR ASSIGNMENT	GG3.12	**A4 Back to Basics pillar**	Good governance	**A9 Indicator Formula**	((1) Number of councillors that have declared their financial interests/ (2) Total number of municipal councillors) *100
A5 Unit of measurement	Percentage of councillors	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	According to the Councillor Code of Conduct in the Municipal Systems Act, 32 of 2000, a councillor must- "When elected or appointed, a councillor must within 60 days declare in writing to the municipal manager the following financial interests held by that councillor: a. shares and securities in any company; b. membership of any close corporation; c. interest in any trust; d. directorships; e. partnerships; f. other financial interests in any business undertaking; g. employment and remuneration; h. interest in property; i. pension; and j. subsidies, grants and sponsorships by any organisation. 7.2 Any change in the nature or detail of the financial interests of a councillor must be declared in writing to the municipal manager annually." Proposed from CoGTA departmental consultations
A11 Notes on calculation	None			**A12 Additional notes**	In the event that a municipality does not observe good practice in this indicator, they should set a target commensurate with their interpretation of the frequency of declaration of interests. Declarations of interest made outside of the financial year should not be considered.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of councillors that have declared their financial interests	**B4 Source**	Municipal Council Registrar of Interests	**C1 Data Element**	(2) Total number of municipal councillors	**C4 Source**	Municipal Council Register
B2 Frequency of collection	Annual	**B5 Units**	Councillors	**C2 Frequency of collection**	Annual	**C5 Units**	Councillors
B3 Definition	The total number of councillors that have declared their financial interests in the year of reporting.			**C3 Definition**	The total number of municipal councillors serving in that municipal financial year.		
B6 Notes	None.			**C6 Notes**	Where a council vacancy is created and filled within the same financial year, it should count the number of councillors in that financial year, even if multiple councillors have occupied one seat.		

4.11 GG4.1

Technical indicator description sheet

A1 Indicator short name	**Average percentage of councillors attending council meetings**	**A2 Alignment**	Improved council functionality	**A7 Rationale**	This indicator shows the level of engagement councillors have in the affairs of the municipality and to what extent councillors are participating in the business for which they were elected.
		A3 Results-chain level	Outcome	**A8 Definition**	The average percentage of members of the municipal council that attended council meetings.
INDICATOR ASSIGNMENT	GG4.1	**A4 Back to Basics pillar**	Good governance	**A9 Indicator Formula**	((1)The sum total of all councillor attendance of all council meetings) / ((2)The total number of council meetings * (3)The total number of council members in the municipality)*100
A5 Unit of measurement	Percentage of councillors	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	CoGTA Back to Basics
A11 Notes on calculation	The indicator should be reported as a cumulative average value for a quarter. Annually, all meetings over the four quarters should be aggregated to reflect an annual average value.			**A12 Additional notes**	No additional information

Reporting responsibility	**Applies to Municipal Category**	**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) The sum total of councillor attendance of all council meetings	**B4 Source**	Municipal Council Register	**C1 Data Element**	(2) The total number of council meetings	**C4 Source**	Council records
B2 Frequency of collection	Annual	**B5 Units**	Councillors	**C2 Frequency of collection**	Annual	**C5 Units**	Meetings
B3 Definition	The total attendance by councillors at council meetings during the period of data collection			**C3 Definition**	The total number of council meetings held by the council including where a quorum is reached		
B6 Notes	This is the cumulative attendance at all council meetings			**C6 Notes**	-		

D1 Data Element	(3) The total number of councillors in the municipality	**D4 Source**	Council register	**E1 Data Element**	-	**E4 Source**	-
D2 Frequency of collection	Annual	**D5 Units**	Councillors	**E2 Frequency of collection**	-	**E5 Units**	-
D3 Definition	The total number of municipal councillors in the municipality			**E3 Definition**	-		
D6 Notes	Register taken at the end of the reporting period			**E6 Notes**	-		

4.12 GG4.11

Technical indicator description sheet

A1 Indicator short name	**Number of agenda items deferred to the next council meeting**	**A2 Alignment**	Improved council functionality	**A7 Rationale**	This indicator shows to what extent municipal business is delayed due to the absence of councillors from council meetings or the concluding of the meeting without attending to all items, which gives an indication of the extent to which councillors are fulfilling their responsibilities as elected representatives of the municipality. Functional councils will process agenda items with resolutions or decisions rather than defer or leave unfinished business. Measuring the number of agenda items that are deferred to the next meeting is a proxy for dysfunction.
		A3 Results-chain level	Output	**A8 Definition**	The number of agenda items that have been deferred to the next council meeting because the council has failed to reach a quorum or withheld decisions on those items. Where multiple council meetings have been held, this is the sum total of those items deferred. This does not refer to agenda items referred to other structures, only items for which no decision or action is taken.
INDICATOR ASSIGNMENT	GG4.11	**A4 Back to Basics pillar**	Good governance	**A9 Indicator Formula**	(1) Sum total number of all council agenda items deferred to the next meeting
A5 Unit of measurement	Number of council decisions	**A6 Frequency of reporting**	Quarterly	**A10 Indicator origin**	CoGTA Back to Basics
A11 Notes on calculation	This is the cumulative number of agenda items deferred in the reporting period.			**A12 Additional notes**	There are accountability implications associated with this indicator which should not reflect in any senior municipal manager's (in terms of Section 56 and 57 of the Municipal Systems Act) annual performance agreement. This is unique in terms of Circular No. 88's provisions because the responsibility rests with the Speaker and Council and not with municipal management.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Sum total number of all council agenda items deferred to the next meeting	**B4 Source**	Council minutes	**C1 Data Element**	-	**C4 Source**	-
B2 Frequency of collection	Quarterly	**B5 Units**	Agenda items	**C2 Frequency of collection**	-	**C5 Units**	-
B3 Definition	The number of agenda items that have been deferred to the next council meeting because the council has failed to reach a quorum or withheld decisions on the matter.			**C3 Definition**	-		
B6 Notes	None			**C6 Notes**	-		

4.13 GG5.1

Technical indicator description sheet							
A1 Indicator short name	**Number of alleged fraud and corruption cases reported per 100 000 population**	**A2 Alignment**	Zero tolerance of fraud and corruption	**A7 Rationale**	Principles of good governance require accountability, clean administration and responsible use of public funds. The indicator provides a leading measure of the incidence of fraud and corruption based on alleged incidents.		
		A3 Results-chain level	Outcome	**A8 Definition**	The number of alleged incidents of fraud and corruption reported to the municipality during the period under review, normalised per 100 000 of the population. Corruption is defined broadly in the Prevention and Combating of Corrupt Activities Act 12 of 2004 in Chapter 2(s3) and any criminal offence that may fall within the ambit of this definition is included for the purposes of this indicator.		
INDICATOR ASSIGNMENT	GG5.1	**A4 Back to Basics pillar**	Good governance	**A9 Indicator Formula**	[(1) Number of alleged fraud and corruption cases reported to the metro / (2)Population of the metro]*100 000		
A5 Unit of measurement	Number of alleged cases	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	ISO 11.4 derivative		
A11 Notes on calculation	None			**A12 Additional notes**	This indicator should be viewed in conjunction with the other related outcome indicators of which this should be a predictor of consequences to follow if systems of accountability are functioning appropriately.		
Reporting responsibility		**Applies to Municipal Category**				**Readiness**	
Shared		**Metro**		**Yes**		**Tier 2**	
B1 Data Element	(1) Number of alleged fraud and corruption cases reported to the metro	**B4 Source**	Metro legal services directorate	**C1 Data Element**	(2) Population: Number of persons who reside within the municipal boundaries.	**C4 Source**	StatsSA General Household Survey
B2 Frequency of collection	Annual	**B5 Units**	Allegations of fraud and corruption	**C2 Frequency of collection**	Annual	**C5 Units**	Population
B3 Definition	The data element is a simple count of the total number of alleged fraud and corruption cases reported to the municipality involving a representative of the municipality in his/her official capacity (whether an elected office-bearer or employee) for an act of corruption. Corruption is defined broadly in the Prevention and Combating of Corrupt Activities Act 12 of 2004 in Chapter 2(s3) and any criminal offence that may fall within the ambit of this definition is included for the purposes of this data element.			**C3 Definition**	Number of people residing in the municipal area		
B6 Notes	This refers only to allegations reported within the financial year and does not related to concluded cases or cases that remain open from previous years.			**C6 Notes**	None		

4.14 GG5.11

Technical indicator description sheet							
A1 Indicator short name	**Number of active suspensions longer than three months**	**A2 Alignment**	Zero tolerance of fraud and corruption	**A7 Rationale**	Individuals on suspension continue to receive salaries without executing their municipal functions. Tracking the suspensions lasting more than three months provides an indication of the processing efficiency in cases of alleged misconduct. This is one indicator of the processing of administrative justice as it relates to human resources.		
		A3 Results-chain level	Output	**A8 Definition**	Refers to the total number of active suspensions at the time of reporting that were initiated more than three months prior and had not yet been resolved.		
INDICATOR ASSIGNMENT	GG5.11	**A4 Back to Basics pillar**	Good governance	**A9 Indicator Formula**	(1) Simple count of the number of active suspensions in the municipality lasting more than three months		
A5 Unit of measurement	Number of suspensions	**A6 Frequency of reporting**	Quarterly	**A10 Indicator origin**	Proposed based on CoGTA departmental consultations		
A11 Notes on calculation	None			**A12 Additional notes**	Ideally, there should be no instances of suspensions enduring for periods longer than three months.		
Reporting responsibility		**Applies to Municipal Category**				**Readiness**	
Metro		**Metro**		**Yes**		**Tier 2**	
B1 Data Element	(1) Simple count of the number of active suspensions in the municipality lasting more than three months	**B4 Source**	Human Resources Department	**C1 Data Element**	-	**C4 Source**	-
B2 Frequency of collection	Quarterly	**B5 Units**	Number of suspensions	**C2 Frequency of collection**	-	**C5 Units**	-
B3 Definition	Sum of the number of active suspensions initiated more than three months prior to the last day of the reporting period.			**C3 Definition**	-		
B6 Notes	-			**C6 Notes**	-		

4.15 GG5.12

Technical indicator description sheet							
A1 Indicator short name	**Quarterly salary bill of suspended officials**	**A2 Alignment**	Zero tolerance of fraud and corruption	**A7 Rationale**	Individuals on suspension continue to receive salaries without executing their municipal functions. Tracking the salary bill of suspended officials provides an indicator of the extent to which enduring suspensions are costing the municipality money without the benefit of service.		
		A3 Results-chain level	Output	**A8 Definition**	The sum of the salary bill for all officials suspended from work or employment for the municipality for misconduct during the reporting period.		
INDICATOR ASSIGNMENT	GG5.12	**A4 Back to Basics pillar**	Good governance	**A9 Indicator Formula**	(1) Sum of the salary bill for all suspended officials for the reporting period.		
A5 Unit of measurement	R-value salaries	**A6 Frequency of reporting**	Quarterly	**A10 Indicator origin**	Proposed based on CoGTA departmental consultations		
A11 Notes on calculation	The indicator should be reported as a cumulative value over months within a quarter (not cumulative across quarters).			**A12 Additional notes**	This target and performance should be set in relation to historic trend data and what is an acceptable cost to the organisation on a quarterly basis. Ideally, the target should be R0, but this is unlikely.		
Reporting responsibility		**Applies to Municipal Category**				**Readiness**	
Metro		**Metro**		**Yes**		**Tier 2**	
B1 Data Element	(1) Sum of the salary bill for all suspended officials for the reporting period	**B4 Source**	Human Resources Department	**C1 Data Element**	-	**C4 Source**	-
B2 Frequency of collection	Quarterly	**B5 Units**	R-value salaries	**C2 Frequency of collection**	-	**C5 Units**	-
B3 Definition	Sum of the salary bill of all suspended officials for the reporting period			**C3 Definition**	-		
B6 Notes	For suspensions effected from the middle of the month a pro-rata salary rate should apply in the calculation of the cost to the municipality.			**C6 Notes**	-		

4.16 GG5.2

Technical indicator description sheet

A1 Indicator short name	**Number of dismissals for fraud and corruption per 100 000 population**	**A2 Alignment**	Zero tolerance of fraud and corruption	**A7 Rationale**	Principles of good governance require accountability, clean administration and responsible use of public funds. The indicator provides a leading measure of the incidence of fraud and corruption based on dismissals.		
		A3 Results-chain level	Outcome	**A8 Definition**	The number of dismissals for fraud and corruption reported to the municipality during the period under review, normalised per 100 000 of the population. Corruption is defined broadly in the Prevention and Combating of Corrupt Activities Act 12 of 2004 in Chapter 2(s3) and any criminal offence that may fall within the ambit of this definition is included for the purposes of this indicator.		
INDICATOR ASSIGNMENT	GG5.2	**A4 Back to Basics pillar**	Good governance	**A9 Indicator Formula**	((1) Number of dismissals for fraud and corruption / (2) Population of the municipality) x 100 000		
A5 Unit of measurement	Number of dismissals	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	ISO 11.4 derivative		
A11 Notes on calculation	None			**A12 Additional notes**	This indicator should be viewed in conjunction with the other related outcome indicators of which this should be a predictor of consequences to follow if systems of accountability are functioning appropriately.		

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Shared	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) Number of dismissals for fraud and corruption at the metro	**B4 Source**	Municipal legal services directorate	**C1 Data Element**	(2) Population: Number of persons who reside within the municipal boundaries.	**C4 Source**	StatsSA General Household Survey
B2 Frequency of collection	Annual	**B5 Units**	Dismissals	**C2 Frequency of collection**	Annual	**C5 Units**	Population
B3 Definition	The data element is a simple count of the total number of dismissals arising from fraud and corruption cases reported to the municipality involving a representative of the municipality in his/her official capacity (whether an elected office-bearer or employee). Corruption is defined broadly in the Prevention and Combating of Corrupt Activities Act 12 of 2004 in Chapter 2(s3) and any criminal offence that may fall within the ambit of this definition is included for the purposes of this data element.			**C3 Definition**	Number of people residing in the municipal area		
B6 Notes	This refers only to dismissals reported within the financial year and does not related to concluded cases or cases that remain open from previous years.			**C6 Notes**	None		

4.17 GG6.11

Technical indicator description sheet							
A1 Indicator short name	**Percentage of the municipality's operating budget on free basic services to indigent households**	**A2 Alignment**	More effective poverty alleviation	**A7 Rationale**	Measuring the percentage of the operating budget spent on free basic services is indicative of the portion of the budget expended on poverty alleviation and also of financial viability of the municipality.		
		A3 Results-chain level	Output	**A8 Definition**	The amount municipal operating budget expended on free basic services to indigent households (R-value) as a percentage of the total operating budget of the municipality for the period.		
INDICATOR ASSIGNMENT	GG6.11	**A4 Back to Basics pillar**	Building capable local government institutions	**A9 Indicator Formula**	(1) R-value of operating budget expenditure on free basic services / (2) R-value of the total operating budget *100		
A5 Unit of measurement	Percentage expenditure	**A6 Frequency of reporting**	Quarterly	**A10 Indicator origin**	Proposed based on CoGTA departmental consultations		
A11 Notes on calculation	None			**A12 Additional notes**	None		
Reporting responsibility	**Applies to Municipal Category**			**Readiness**			
Metro	**Metro**			**Yes**		**Tier 1**	
B1 Data Element	(1) R-value of operating budget expenditure on free basic services	**B4 Source**	BAS	**C1 Data Element**	(2) Total operating budget for the municipality	**C4 Source**	Annual Budget
B2 Frequency of collection	Quarterly	**B5 Units**	R-value	**C2 Frequency of collection**	Quarterly	**C5 Units**	R-value
B3 Definition	The total amount (R-value) of operating budget expended on free basic services to indigent households registered with the municipality as well as any universal free basic service allocations.			**C3 Definition**	The total amount (R-value) of operating budget of the municipality for the period under review.		
B6 Notes	None			**C6 Notes**	None.		

4.18 GG6.12

Technical indicator description sheet

A1 Indicator short name	**Number of work opportunities through EPWP, CWP and other related infrastructure programmes**	**A2 Alignment**	More effective poverty alleviation	**A7 Rationale**	Work opportunities created through state funded infrastructure programmes are an important means of poverty alleviation delivered by municipalities and other state organs within the municipal area.
		A3 Results-chain level	Output	**A8 Definition**	The indicator measures the number of work opportunities created through state funded infrastructure programmes such as the Expanded Public Works Programme (administered by the municipality), the Community Works Programme (CWP) (administered by the Department of Cooperative Governance) and any other infrastructure-related work opportunities delivered by state organs within the municipal area.
INDICATOR ASSIGNMENT	GG6.12	**A4 Back to Basics pillar**	Building capable local government institutions	**A9 Indicator Formula**	(1) Number of short-term work opportunities through the municipality for Expanded Public Works Programme + (2) the Number of short-term work opportunities through the Community Works Programme and other related infrastructure initiatives.
A5 Unit of measurement	Number of work opportunities	**A6 Frequency of reporting**	Quarterly	**A10 Indicator origin**	CoGTA Back 2 Basics
A11 Notes on calculation	None			**A12 Additional notes**	The indicator is a shared reporting responsibility because the work opportunities provided by the CWP and other infrastructure-related programmes delivered by state organs are the reporting responsibilities of non-municipal actors. Municipalities can report on EPWP work opportunities and make use of unverified data for the purposes of quarterly reporting even in the absence of the supply of the CWP work opportunities.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Shared	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) Number of short-term work opportunities provided through the municipality for Expanded Public Works Programme	**B4 Source**	Department of Infrastructure Delivery or related	**C1 Data Element**	(2) Number of short-term work opportunities provided through the Community Works Programme and other related infrastructure initiatives.	**C4 Source**	Provincial Department of Local Government and/or Department of Cooperative Governance
B2 Frequency of collection	Quarterly	**B5 Units**	Number of work opportunities	**C2 Frequency of collection**	Quarterly	**C5 Units**	Number of work opportunities
B3 Definition	Simple count of short-term work opportunities provided through the municipality for Expanded Public Works Programme. Figures can be unverified EPWP reporting for the period.			**C3 Definition**	Simple count of short-term work opportunities provided through the municipality for CWP and any other infrastructure-related work opportunities delivered by state organs within the municipal area.		
B6 Notes	None			**C6 Notes**	There is not yet an agreed reporting protocol for this data element and so it remains as a placeholder while municipalities begin reporting on EPWP work opportunities in the interim.		

5 Housing and Community Facilities

5.1 HS 1.1

Technical indicator description sheet							
A1 Indicator short name	**Percentage of households living in adequate housing**	**A2 Alignment**	Improved access to adequate housing	**A7 Rationale**	Government seeks to increase the number of households residing in adequate housing in line with constitutional imperatives and the strategic goals over the medium term.		
		A3 Results-chain level	Outcome	**A8 Definition**	Adequate housing' has seven elements: legal security of tenure, services, affordability, habitability, accessibility, location and cultural adequacy. For the purposes of this indicator, adequate housing is defined as 'formal' housing in terms of the Statistics South Africa definition used in the General household Survey, which is "A structure built according to approved plans, i.e. house on a separate stand, flat or apartment, townhouse, room in backyard, rooms or flatlet elsewhere", thereby excluding informal (whether in in informal settlement or back yard) and traditional dwellings. The indicator is therefore the number of households residing in formal dwellings as a percentage of the total number of households within the municipality.	
INDICATOR ASSIGNMENT	HS1.1	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	((1)Number of households in formal dwellings/ (2)Total no. of households within the municipality) X 100		
A5 Unit of measurement	Percentage of households	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	The indicator originates with Outcome 8: Sub-outcome 1- Adequate housing and improved quality living environments. There is an Outcome 8 indicator labelled 'Number of households living in adequate housing'. This can be seen as the inverse of ISO 37120 indicator 15.1 titled "Percentage of city population living in slums" and the inverse of the MDG indicator 11.1.1 titled "Proportion of urban population living in slums, informal settlements or inadequate housing"		
A11 Notes on calculation	The calculation is easily done using both a numerator and denominator obtained from the StatsSA General Household Survey.			**A12 Additional notes**	None		
Reporting responsibility	**Applies to Municipal Category**					**Readiness**	
National	**Metro**			**Yes**		**Tier 1**	
B1 Data Element	(1) Number of households that live in formal dwellings	**B4 Source**	StatsSA General Household Survey	**C1 Data Element**	(2) Total number of households in the municipality	**C4 Source**	StatsSA General Household Survey
B2 Frequency of collection	Annual	**B5 Units**	Number of households	**C2 Frequency of collection**	Annual	**C5 Units**	Number of households
B3 Definition	Refers to the number of self-identified 'households' residing in formal dwelling, defined in the StatsSA General Household survey as a structure built according to approved plans, i.e. house on a separate stand, flat or apartment, townhouse, room in backyard, rooms or flatlet elsewhere. Contrasted with informal dwelling and traditional dwelling.			**C3 Definition**	This is the total number of households (of all types - formal, informal, and traditional) within the municipal area of jurisdiction		
B6 Notes	None			**C6 Notes**	The data element is understood to be specific to the survey item used to obtain the data by Statistics South Africa to avoid issues arising from non-response during the survey.		

5.2 HS1.11

Technical indicator description sheet							
A1 Indicator short name	**Number of subsidised housing units completed**	**A2 Alignment**	Improved access to adequate housing	**A7 Rationale**	Municipalities accredited to perform some of the housing functions are able to construct housing units as part of the national housing programme using the Human Settlements Development Grant. The indicator seeks to track an annual performance output for subsidised housing units constructed by the metro.		
		A3 Results-chain level	Output	**A8 Definition**	The number of all subsidised housing units (in terms of minimum levels of service) completed by the metro in the municipal financial year.		
INDICATOR ASSIGNMENT	HS1.11	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	Simple count of all (1) subsidised housing units completed by the metro in the financial year.		
A5 Unit of measurement	Number of housing units	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	The indicator originates with Outcome 8: Sub-outcome 1- Adequate housing and improved quality living environments.		
A11 Notes on calculation	None			**A12 Additional notes**	There may be other housing units built and completed in the metro by provincial government. It is important that the number of housing units completed refer only to those that the metro has built.		
Reporting responsibility		**Applies to Municipal Category**				**Readiness**	
Metro		**Metro**		**Yes**		**Tier 2**	
B1 Data Element	(1) Number of subsidised housing units completed by the metro.	**B4 Source**	Metro department responsible for housing	**C1 Data Element**	-	**C4 Source**	-
B2 Frequency of collection	Annual	**B5 Units**	Number of housing units	**C2 Frequency of collection**	-	**C5 Units**	-
B3 Definition	The number of all serviced, subsidised housing units (in terms of minimum levels of service) completed by the metro within the municipal financial year. Excludes provincial housing projects.			**C3 Definition**	-		
B6 Notes	As above.			**C6 Notes**	-		

5.3 HS1.12

Technical indicator description sheet

A1 Indicator short name	**Number of formal sites serviced**	**A2 Alignment**	Improved access to adequate housing	**A7 Rationale**	A basic level service for the core services of water, electricity and sanitation is a prerequisite for 'adequate housing'. This indicator tracks the number of new sites to which the municipality has provided a minimum service level for the three basic services in terms of infrastructure provision (e.g. water, sanitation and electricity). Waste removal is a recurring service that is not based on infrastructure provision to a site and is therefore excluded.		
		A3 Results-chain level	Output	**A8 Definition**	A site refers to a pre-determined area where basic services can be provided, there is some degree of security of tenure and to which a household can be situated or relocated and/or upgraded. This refers to the number of all sites serviced with new connections for all three services of electricity, water and sanitation to a basic level within the municipality in the financial year. These sites do not include the construction of top structures. A basic level of service is defined as an individual service to each site (not shared) meeting the national minimum standard (the Regulations in terms of the Water Services Act in the case of water and sanitation and the Policy Guidelines for the Integrated National Electrification Programme (INEP) 2016/17 in the case of electricity), or the minimum standards defined by the municipality, whichever is higher.		
INDICATOR ASSIGNMENT	HS1.12	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	A simple count of all (1) sites serviced with all three of the basic services.		
A5 Unit of measurement	Number of serviced sites	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	The indicator originates with Outcome 8: Sub-outcome 1- Adequate housing and improved quality living environments. There is also an Urban Settlements Development Grant indicator- Number of sites currently serviced with electricity, water (house connection) sewerage removal service and solid waste removal service (622) which corresponds to this indicator.		
A11 Notes on calculation	Sites lacking any one of the services, or below the minimum standard for that service should be excluded. Communal servicing of informal settlements should be excluded.			**A12 Additional notes**	This indicator is also intended to support the realisation of improving access to adequate housing by tracking the three core service connections/provisions as a pre-requisite. Serviced sites will be provided as part of the national housing programme, but may also be provided by the municipality using the USDG or other funding.		

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of sites serviced	**B4 Source**	Municipal department responsible for servicing sites	**C1 Data Element**	-	**C4 Source**	-
B2 Frequency of collection	Annual	**B5 Units**	Number of serviced sites	**C2 Frequency of collection**	-	**C5 Units**	-

B3 Definition	The number of all sites serviced with basic levels of electricity, water, sanitation and refuse removal that do note include the construction of top structures.	**C3 Definition**	-
B6 Notes	As above.	**C6 Notes**	-

5.4 HS1.3

Technical indicator description sheet

A1 Indicator short name	**Percentage of households in informal settlements targeted for upgrading**	**A2 Alignment**	Increased security of tenure	**A7 Rationale**	Providing security of tenure to inhabitants of informal settlements is integral to the upliftment of communities. Security of tenure provides the household with a fixed asset, surety of location and the incentive to invest in the incremental upgrading of their property and wider community. Security of tenure is provided incrementally, with the first step being recognition by the municipality and then targeting for upgrading.
		A3 Results-chain level	Outcome	**A8 Definition**	The number of households living in dwellings in informal settlements that have been designated for permanent in-situ upgrade (ie. NUSP Category A and B1) as a percentage of all households living in informal settlements within the municipality.
INDICATOR ASSIGNMENT	HS1.3	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	((1)Number of households living in informal settlements targeted for upgrading / (2)Number of households living in informal settlements in the metro)*100
A5 Unit of measurement	Percentage of households in informal settlements targeted for upgrading	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	The indicator originates with Outcome 8: Sub-outcome 1- Adequate housing and improved quality living environments. There is an Outcome 8 indicator labelled 'Number of households living in adequate housing'. At the output level, there is an Urban Settlements Development Grant Indicator labelled 'Number of households living in informal settlements targeted for upgrading', which informs this indicator.
A11 Notes on calculation	A definitional issue arises as to whether municipalities are actually tracking 'dwellings' or 'households' as per the definition here. Municipal consultations emphasised 'households' and so this is retained. As a Tier 2 indicator, provision should be made to adjust the unit of measurement from household to dwelling based on the source data.			**A12 Additional notes**	All settlements that have designated Category A and B1 in terms of NUSP guidelines, or equivalent, should be included in the numerator of this indicator. Dwellings in informal settlements that have not been explicitly categorised as qualifying for in-situ upgrading should not be included in the numerator. This both incentivises the categorisation of settlements and the provision of security of tenure. Dwelling is used as a proxy for households in the absence of this enumeration.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) Number of households living in informal settlements targeted for upgrading	**B4 Source**	Enumeration of informal settlements undertaken by municipality	**C1 Data Element**	(2) Number of households living in informal settlements	**C4 Source**	Enumeration of informal settlements undertaken by municipality
B2 Frequency of collection	Annual	**B5 Units**	Number of households	**C2 Frequency of collection**	Annual	**C5 Units**	Number of households

B3 Definition	The total number of households living in dwellings in informal settlements which have been recognised by the municipality and for which upgrading plans have been developed.	**C3 Definition**	The number of households residing in all informal settlements in the metro.
B6 Notes	This data is already being reported upon in the Section 71 reports being submitted to National Treasury, although it is less well defined.	**C6 Notes**	This data is already being reported upon in the Section 71 reports being submitted to National Treasury.

5.5 HS1.31

Technical indicator description sheet

A1 Indicator short name	**Number of informal settlements enumerated and classified (in terms of NUSP or equivalent classification)**	**A2 Alignment**	Increased security of tenure	**A7 Rationale**	Providing security of tenure to inhabitants of informal settlements is integral to the upliftment of communities. By classifying informal settlements according to the UISP the settlements are comprehensively appraised, enumerated and marked for intervention in the form of upgrade or relocation. This classification is an important pre-requisite for incremental security of tenure on a tenure spectrum.
		A3 Results-chain level	Output	**A8 Definition**	The number of designated informal settlements within the municipal area enumerated and classified according to the NUSP categorisation, or equivalent. Enumeration includes the collection of household level data of informal settlement residents, as well as the levels and status of services in the settlement.
INDICATOR ASSIGNMENT	HS1.31	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	Simple count of the (1) number of informal settlements enumerated and classified according to the UISP categorisation, or equivalent, in the period under assessment.
A5 Unit of measurement	Number of informal settlements	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	The indicator originates with Outcome 8: Sub-outcome 1- Adequate housing and improved quality living environments. There is an Outcome 8 indicator labelled 'Number of existing informal settlements assessed' and this is a pre-requisite to informal settlement upgrading.
A11 Notes on calculation	Settlements for which only a dwelling count is available should not be included. Settlements need to have been enumerated and classified according to the NUSP classification, or equivalent, in the financial year in order to be counted.			**A12 Additional notes**	The indicator does not currently distinguish between the size of an informal settlement. It treats all designated informal settlements equally, regardless of size.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of informal settlements enumerated and classified according to the UISP categorisation, or equivalent.	**B4 Source**	Metro department responsible for informal settlements	**C1 Data Element**	-	**C4 Source**	-
B2 Frequency of collection	Annual	**B5 Units**	Number of informal settlements	**C2 Frequency of collection**	-	**C5 Units**	-
B3 Definition	The number of designated informal settlements within the municipal area enumerated and classified according to the UISP, or equivalent classification, within the municipal area in the period under assessment.			**C3 Definition**	-		
B6 Notes	Once all informal settlements in the metro have been enumerated and classified the value of this indicator is limited and it should be revised.			**C6 Notes**	-		

5.6 HS1.32

Technical indicator description sheet

A1 Indicator short name	**Percentage of informal settlements using a participatory approach to planning or implementing upgrading**	**A2 Alignment**	Increased security of tenure	**A7 Rationale**	The Upgrading Informal Settlements Programme (UISP) and the process of participatory planning is one of the key Programmes contained in the National Housing Code and highly prioritised by National Human Settlements strategic policy. The number of informal settlements identified for participatory upgrading is critical to providing fast-tracked tenure security to households, promoting health and security through the provision of basic necessity infrastructure and services, as well as empowering residents to take control of housing development directly.
		A3 Results-chain level	Output	**A8 Definition**	Percentage of informal settlements in which a participatory approach to planning or implementing upgrading is being used. A participatory approach is defined as including the settlement residents, the ward committee and ward councillor in a process in which they are able to influence the development priorities and the settlement layout. Involvement of the ward councillor or ward committee only, or processes that provide information about proposed municipal plans at public meetings do not qualify as participatory processes.
INDICATOR ASSIGNMENT	HS1.32	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	The number of (1) informal settlements that are in the process of upgrading through participatory planning + (2) settlements which have been identified for future upgrading through participatory planning for which budget has been allocated for participatory processes in the MTREF / (3) the total number of discrete informal settlements within the municipality
A5 Unit of measurement	Percentage of informal settlements	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	The indicator originates with the Upgrading Informal Settlements Programme (UISP) introduced in the Comprehensive Plan for the Development of Sustainable Human Settlements ("Breaking New Ground") which emphasised the participatory nature of upgrading. Part 3 Volume 4 of the Housing Code, which describes this programme, states that "(t)he municipality must demonstrate effective interactive community participation".
A11 Notes on calculation	In order to be counted for this indicator, the settlement need not be upgraded as part of the UISP, but could be upgraded as part of a municipal service provision programme, provided that the required participatory process as set out in Part 3 Volume 4 of the Housing Code is being used.			**A12 Additional notes**	The indicator does not currently distinguish between the size of an informal settlement. It treats all designated informal settlements equally, regardless of size.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Count of informal settlements in the process of upgrading using participatory planning	**B4 Source**	Metro department responsible for informal settlements	**C1 Data Element**	(2) A simple count of informal settlements that have been identified for upgrading through participatory planning processes and which have been allocated a budget for this process in the medium term review and expenditure framework.	**C4 Source**	Municipal medium term review and expenditure framework (MTREF)
B2 Frequency of collection	Annual	**B5 Units**	Number of informal settlements	**C2 Frequency of collection**	Annual	**C5 Units**	Number of informal settlements

B3 Definition	A simple count of informal settlements that are engaged in the Upgrading informal Settlements Programme phases 1-4 or equivalent using the levels of participation specified in Part 3 Volume 4 of the Housing Code.			**C3 Definition**	Participatory planning towards upgrading may be undertaken outside of the Human Settlements programme and therefore may not necessarily be funded through the HSDG or be a UISP project. However for definitional purposes the identified project should be applicable to the policy intent and principles of the UISP programme as contained in the National Housing Code (2009) in order to qualify under this data element.		
B6 Notes	Participatory planning towards upgrading may be undertaken outside of the Human Settlements programme and therefore may not necessarily be funded through the HSDG or be a UISP project. However for definitional purposes the identified project should be applicable to the policy intent and principles of the UISP programme as contained in the National Housing Code (2009) in order to qualify under this data element.			**C6 Notes**	-		
D1 Data Element	(3) Count of all discrete informal settlements in the municipality	**D4 Source**	Municipal records	**E1 Data Element**	-	**E4 Source**	-
D2 Frequency of collection	Annual	**D5 Units**	Number of informal settlements	**E2 Frequency of collection**	-	**E5 Units**	-
D3 Definition	This data element utilises the StatSA (2011 census metadata) definition of an 'informal settlement' : An unplanned settlement on land that has not been surveyed or proclaimed as residential, consisting mainly of informal dwellings.			**E3 Definition**	-		
D6 Notes	-			**E6 Notes**	-		

5.7 HS2.2

Technical indicator description sheet

A1 Indicator short name	**Rateable residential properties as a percentage of total households in the municipality**	**A2 Alignment**	Improved functionality of the property market	**A7 Rationale**	This indicator is designed to track the creation of formalised, rateable, residential properties in a metro, relative to the total number of households. As an ongoing indicator it monitors the rate of formalisation against the rate of household growth in a metro. It further assists in informing financial sustainability of the metro's rates income and cross subsidisation requirements. The closer the measured percentage is to 100%, the more formal properties are available to house the metro population, which is an indication of a functional property market.
		A3 Results-chain level	Outcome	**A8 Definition**	This indicator measures the total number of formalised residential properties on the municipal valuation roll at a standard collection time. This number is divided by the total number of households in the municipal area at the same point in time.
INDICATOR ASSIGNMENT	HS2.2	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	((1)Number of residential properties which are contained on the valuation roll, for all values / (2)Total number of households in the metro) x 100
A5 Unit of measurement	Percentage of rateable residential properties	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	The indicator originates with Outcome 8: Sub-outcome 2- A functionally equitable residential property market. There is an indicator that seeks to measure the 'Number of rateable properties...entering the rates roll of municipalities' and this indicator is informed by this.
A11 Notes on calculation	The indicator should be calculated with data element 1 being collected at the same time as the household survey is conducted within the municipality.			**A12 Additional notes**	Number of households do not correspond directly to number of properties but are used as a proxy.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Shared	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of residential properties contained on the valuation roll	**B4 Source**	Municipal valuation roll	**C1 Data Element**	(2) Total number of households in the municipality	**C4 Source**	StatsSA General Household Survey
B2 Frequency of collection	Annual	**B5 Units**	Number of residential property units	**C2 Frequency of collection**	Annual	**C5 Units**	Number of households
B3 Definition	This indicator measures all residential properties captured on the municipal valuation roll once per annum, with sectional title properties counted individually			**C3 Definition**	Refers to the number of self-identified 'households' residing in all types of dwellings (inclusive of formal, informal and traditional dwellings) within the municipality identified via the annual household survey.		
B6 Notes	The date of collection of the total number of rateable residential properties should coincide with the timing of the General Household Survey			**C6 Notes**	The data element is understood to be generic to the total number of households within the municipality and is not linked to a specific survey item.		

5.8 HS2.21

Technical indicator description sheet

A1 Indicator short name	**Number of rateable residential properties in the subsidy housing market entering the municipal valuation roll**	**A2 Alignment**	Improved functionality of the property market	**A7 Rationale**	This indicator is designed to track the creation of formalised, rateable, residential properties subsidised by the state in a metro. A rateable residential property receives services from the metro and in return the metro collects revenue. This is an important component of a functional property market since the lack of services inhibits the value of the asset. A metro's financial viability is also linked to its rates base. Tracking the formalisation of state subsidised housings onto the municipal valuation roll provides an indication of whether new housings are enhancing the financial viability of the metro and increasing the formal property market in the low-income band.
		A3 Results-chain level	Output	**A8 Definition**	The indicator is defined as the number of housing units built within the municipal area (on the HSS) that benefited from a state subsidy, entering the municipal valuation roll.
INDICATOR ASSIGNMENT	HS2.21	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	A simple count of (1) all housing units completed within the municipal area using a state subsidy (on the HSS) and entering the municipal valuation roll within the period under assessment.
A5 Unit of measurement	Number of subsidised residential properties entering the valuation roll	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	The indicator originates with Outcome 8: Sub-outcome 2- A functionally equitable residential property market. There is an indicator that seeks to measure the 'Number of rateable properties...entering the rates roll of municipalities' and this indicator is informed by this at the functional output level.
A11 Notes on calculation	A comparison between all new entries to the municipal valuation roll and all completed housing units on the HSS within the municipal area will be required to determine this simple count. Subsidised properties are usually provided with rates exemptions, but should still be captured on the valuation roll.			**A12 Additional notes**	None

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of new subsidised residential properties completed by the metro entering the municipal valuation roll	**B4 Source**	Municipal valuation roll	**C1 Data Element**	-	**C4 Source**	-
B2 Frequency of collection	Annual	**B5 Units**	Number of properties	**C2 Frequency of collection**	-	**C5 Units**	-
B3 Definition	The number of all new subsidised residential properties completed by the metro and entering the municipal valuation roll in the period under assessment.			**C3 Definition**	-		
B6 Notes	A new subsidised housing unit delivered by the metro entering the valuation roll for the first time should only be counted if the unit was completed in the same financial year.			**C6 Notes**	-		

5.9 HS2.22

Technical indicator description sheet

A1 Indicator short name	**Average number of days taken to process residential building plan applications**	**A2 Alignment**	Improved functionality of the property market	**A7 Rationale**	This is an efficiency measure of the average processing time of the residential building plan applications submitted to the municipality. Delays in the processing of building plan applications affect the time taken to build new housing within the municipal area and may become a deterrent to property development. Removing unnecessary delays or uncertainties related to the efficiency of building plan application processes supports a functional property market within the municipality.		
		A3 Results-chain level	Output	**A8 Definition**	The indicator measures the number of days a residential building plan application to the municipality takes to be processed, from the date of submission of all required information to the date of communication of the initial adjudication results of that application, on average, per application. Excludes time taken to process appeals of the initial decision. Residential building plans are defined as all residential building plan applications less than 500 square meters.		
INDICATOR ASSIGNMENT	HS2.22	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Sum of the number of days between the date of submission of a complete residential building plan application to the municipality and the communication of the adjudication result of the application, for all residential applications in the period of assessment /(2) Number of residential building plan applications adjudicated in the financial year to date		
A5 Unit of measurement	Number of days: Applications	**A6 Frequency of reporting**	Quarterly	**A10 Indicator origin**	The indicator's origin rests with municipalities already tracking this measure of efficiency as it relates to building plan applications.		
A11 Notes on calculation	Calculations should be made and tracked on a quarterly basis. The quarterly calculation should be cumulative for the year so that the 4th quarter calculation is a measure of the average processing time for the entire municipal financial year. If a building plan application has not been adjudicated at the time of reporting it should be excluded from the total number of building plan applications. The numerator and denominator should cover the same period and the same type of applications (i.e. residential only, or all applications).			**A12 Additional notes**	This indicator should ideally be calculated for residential building plans only of 500 square meters or less, insofar as possible. If the available data relates to all building plan applications, or building applications of a size most often associated with residential building plans, this is an adequate proxy and should be clarified in the Standard Operating Procedure of the municipality.		

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) Number of days between submission and adjudication of residential building plan applications	**B4 Source**	Municipal building plan submission register	**C1 Data Element**	(2) Number of residential building plan applications adjudicated in the financial year to date	**C4 Source**	Municipal building plan submission register
B2 Frequency of collection	Quarterly	**B5 Units**	Number of days	**C2 Frequency of collection**	Quarterly	**C5 Units**	Number of building plan applications
B3 Definition	Sum of the number of days between the date of submission of a complete residential building plan application of 500 square meters or less to the municipality and the communication of the adjudication result of the application, for all applications in the year to date.			**C3 Definition**	Total number of building plan applications adjudicated by the municipality in the financial year to date		
B6 Notes	Sum total of all days for all building plan applications is the numerator in the equation. This is cumulative over the course of the municipal financial year. This indicator should ideally be calculated for residential building plans of 500 square meters or less only, if possible. If the available data relates to all building plan applications, this is an adequate proxy.			**C6 Notes**	The total number is cumulative so the measure of the 4th quarter should provide the measure for the entire financial year. This indicator should ideally be calculated for residential building plans of 500 square meters or less only, if possible. If the available data relates to all building plan applications, or building applications of a size most often associated with residential building plans, this is an adequate proxy.		

5.10 HS2.3

Technical indicator description sheet

A1 Indicator short name	**Percentage of households living in formal dwellings who rent**	**A2 Alignment**	Improved functionality of the property market	**A7 Rationale**	The balancing of residential rental and ownership options in a city are vital component's of accessibility and household asset creation. The ratio of residential rent is further a lead indicator on property price dynamics within a city.
		A3 Results-chain level	Outcome	**A8 Definition**	The total number of all households in the metro which regularly pay a sum of money or provide a service in return for a place of residence to a second party for the use of residential purposes in formal dwellings as a proportion of all households living in formal dwellings. The tenure status in the General Household Survey will be the sum of the two categories: "1 = Rented from private individual" and "2 = Rented from other (incl. municipality and social housing institutions)".
INDICATOR ASSIGNMENT	HS2.3	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	((1)Number of households described as 'renting' in formal dwellings/(2)Total number of households in formal dwellings within the municipal area)*100
A5 Unit of measurement	Percentage of households in formal dwellings	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	The indicator originates with Outcome 8: Sub-outcome 2- A functionally equitable residential property market. There is not currently any indicator that addresses renting but tenure status is regularly collected by StatsSA.
A11 Notes on calculation	The calculation includes only households listed as residing in formal dwellings.			**A12 Additional notes**	None

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
National	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of households in formal dwellings 'renting'	**B4 Source**	StatsSA General Household Survey	**C1 Data Element**	(2) Total number of households in the municipality	**C4 Source**	StatsSA General Household Survey
B2 Frequency of collection	Annual	**B5 Units**	Number of households	**C2 Frequency of collection**	Annual	**C5 Units**	Number of households
B3 Definition	Refers to the number of self-identified households living in formal dwellings whose tenure status is reflected as either: "1 = Rented from private individual" or "2 = Rented from other (incl. municipality and social housing institutions)".			**C3 Definition**	This is the total number of households (of all types - formal, informal, and traditional) within the municipal area of jurisdiction		
B6 Notes	This is a cross-tabulation of dwelling type and tenure status as surveyed in the GHS.			**C6 Notes**	The data element is understood to be specific to the survey item used to obtain the data by Statistics South Africa to avoid issues arising from non-response during the survey.		

5.11 HS3.1

Technical indicator description sheet							
A1 Indicator short name	**Square meters of municipally owned or maintained public outdoor recreation space per capita**	**A2 Alignment**	Increased access to and utilisation of social and community facilities	**A7 Rationale**	The provision of adequate recreational area is a core component of enhancing living environments for residents		
		A3 Results-chain level	Outcome	**A8 Definition**	Square meters of municipally owned or maintained active outdoor space intended for recreational purposes. Public recreation space is defined broadly to mean land and open space available to the public for recreation. Recreation space shall include only space that primarily serves a recreation purpose. Includes: parks, outdoor sports facilities and public open space. Does not include beaches, resorts and nature reserves. Does not include pedestrianised streets and sidewalks, but may include pedestrian walkways with primarily a recreational purpose. Facilites charging an access fee may still be regarded as 'public' provided that no other access criteria are applied (annual membership fee, club affiliations, etc.).		
INDICATOR ASSIGNMENT	HS3.1	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	Sum of the (1) Square meters of muncipally owned or maintained outdoor recreational area / (2) Total municipal population		
A5 Unit of measurement	Ratio: Area of open space in square meters per capita	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	The indicator originates with Outcome 8: Sub-outcome 1- Adequate housing and improved quality living environments and is based on the ISO 37120 indicator 13.2 "Square metres of public outdoor recreation space per capita".		
A11 Notes on calculation	Only area available for active outdoor recreation should be counted, excluding building area, parking areas and steep slopes. For multi-use facilities, only the portion of the land devoted to recreation shall be counted.			**A12 Additional notes**	None		
Reporting responsibility		**Applies to Municipal Category**				**Readiness**	
Shared		**Metro**		**Yes**		**Tier 2**	
B1 Data Element	(1) Sum of area of all municipally owned or maintained public open space that is intended for recreational purposes and zoned accordingly.	**B4 Source**	Metro GIS	**C1 Data Element**	(2) Total population of the municipality	**C4 Source**	StatsSA Mid-Year Population Estimate
B2 Frequency of collection	Annual	**B5 Units**	m^2	**C2 Frequency of collection**	Annual	**C5 Units**	Number of people
B3 Definition	Area (square meters) of municipally owned public open space that is intended for recreational purposes and zoned accordingly.			**C3 Definition**	Estimated population of the municipality in the year		
B6 Notes	See above			**C6 Notes**	None.		

5.12 HS3.2

Technical indicator description sheet							
A1 Indicator short name	**Number of community halls per 100 000 population**	**A2 Alignment**	Increased access to and utilisation of social and community facilities	**A7 Rationale**	The number of community halls in a municipality is directly indicative of the level of this particular service provided to the community.		
		A3 Results-chain level	Outcome	**A8 Definition**	The number of community halls per 100 000 population. A community hall is defined by the CSIR Guidelines for the Provision of Social Facilities in South African Settlements (2012) as a "Centre or hall for holding public meetings, training, entertainment and other functions and having a variety of facilities such as a kitchen, toilets, storage space, etc. which should be provided at nominal rates for hire, with rentals tied to socio-economic status of area to provide affordable service."		
INDICATOR ASSIGNMENT	HS3.2	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	((1) Count of community halls/ (2) Municipal population) X 100 000		
A5 Unit of measurement	Ratio: Count of community halls per 100 000 population	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	The indicator originates with Outcome 8: Sub-outcome 1- Adequate housing and improved quality living environments.		
A11 Notes on calculation	Includes grade A-E community halls.			**A12 Additional notes**	None		
Reporting responsibility		**Applies to Municipal Category**				**Readiness**	
Shared		**Metro**		**Yes**		**Tier 1**	
B1 Data Element	(1) Count of community halls	**B4 Source**	Municipal records	**C1 Data Element**	(2)Total population of the municipality	**C4 Source**	StatsSA Mid-Year Population Estimate
B2 Frequency of collection	Annual	**B5 Units**	Number of community halls	**C2 Frequency of collection**	Annual	**C5 Units**	Number of people
B3 Definition	A simple count of community halls, defined as municipally owned enclosed spaces that serve as general meeting spaces for the public.			**C3 Definition**	Estimated population of the municipality in the year		
B6 Notes	No additional notes			**C6 Notes**	None.		

5.13 HS3.3

Technical indicator description sheet

A1 Indicator short name	**Number of public libraries per 100 000 population**	**A2 Alignment**	Increased access to and utilisation of social and community facilities	**A7 Rationale**	The number of libraries in a municipality is directly indicative of the level of this particular service provided to the community.		
		A3 Results-chain level	Outcome	**A8 Definition**	The number of libraries per 100 000 population		
INDICATOR ASSIGNMENT	HS3.3	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	((1) Count of libraries/(2) Municipal population) X 100 000		
A5 Unit of measurement	Ratio: Count of libraries per 100 000 population	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	The indicator originates with Outcome 8: Sub-outcome 1- Adequate housing and improved quality living environments.		
A11 Notes on calculation	Includes local and regional (reference) libraries.			**A12 Additional notes**	None		

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Shared	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Count of libraries	**B4 Source**	Municipal records	**C1 Data Element**	(2)Total population of the municipality	**C4 Source**	StatsSA Mid-Year Population Estimate
B2 Frequency of collection	Annual	**B5 Units**	Number of libraries	**C2 Frequency of collection**	Annual	**C5 Units**	Number of people
B3 Definition	A simple count of public libraries, accessible by the general public			**C3 Definition**	Estimated population of the municipality in the year		
B6 Notes	No additional notes			**C6 Notes**	None.		

5.14 HS3.5

Technical indicator description sheet							
A1 Indicator short name	**Percentage utilisation rate of community halls**	**A2 Alignment**	Increased access to and utilisation of social and community facilities	**A7 Rationale**	Utilisation rate is indicative of the supply and demand for community facilities. It can be used to inform planning and performance of facilities.		
		A3 Results-chain level	Outcome	**A8 Definition**	The percentage of available hours across all community halls that are booked in a year.		
INDICATOR ASSIGNMENT	HS3.5	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Sum of hours booked across all community halls in the period of assessment / (2) Sum of available hours for all community halls in the period of assessment		
A5 Unit of measurement	Percentage of hours of community hall bookings	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	The indicator originates with Outcome 8: Sub-outcome 1- Adequate housing and improved quality living environments.		
A11 Notes on calculation	Where booking data is not kept, the available hours should still be captured in the denominator in order to incentivise booking systems to be put in place.			**A12 Additional notes**	None		
Reporting responsibility		**Applies to Municipal Category**				**Readiness**	
Metro		**Metro**		**Yes**		**Tier 2**	
B1 Data Element	(1) Sum of hours booked across all community halls in the period of assessment	**B4 Source**	Municipal records	**C1 Data Element**	(2) Sum of available hours for all community halls in the period of assessment.	**C4 Source**	Municipal records
B2 Frequency of collection	Annual	**B5 Units**	Number of hours	**C2 Frequency of collection**	Annual	**C5 Units**	Number of hours
B3 Definition	The total number of hours public community halls are reserved for use.			**C3 Definition**	Sum of the total number of possible booking hours for all community halls/centres		
B6 Notes	It is proposed that this data element would be collected from an integrated municipal record system. However it is likely that these vary significantly across the metros. Whatever booking information is available should be included.			**C6 Notes**	This is a calculated figure based on the hours that each facility is able to be booked. The available hours for all community halls should then be summed.		

5.15 HS3.6

Technical indicator description sheet

A1 Indicator short name	**Average number of library visits per library**	**A2 Alignment**	Increased access to and utilisation of social and community facilities	**A7 Rationale**	Utilisation rate is indicative of the supply and demand for community facilities such as libraries. It can be used to inform planning and performance of facilities. The number of visits is a direct measure of utilisation, whether to access books or to use the space for one of its other community functions.
		A3 Results-chain level	Outcome	**A8 Definition**	The average number of library visits per library per year.
INDICATOR ASSIGNMENT	HS3.6	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Total number of library visits / (2)Count of libraries
A5 Unit of measurement	Number of visits per library per year	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	The indicator originates with Outcome 8: Sub-outcome 1- Adequate housing and improved quality living environments.
A11 Notes on calculation	None			**A12 Additional notes**	None

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Total number of library visits	**B4 Source**	Municipal records	**C1 Data Element**	(2) Count of libraries	**C4 Source**	Municipal records
B2 Frequency of collection	Annual	**B5 Units**	Number of visits	**C2 Frequency of collection**	Annual	**C5 Units**	Number of libraries
B3 Definition	The total headcount of people passing through the library doors, as measured by turnstyles or electronic counters, and divided by two where counting takes place on entry and exit, for all libraries.			**C3 Definition**	A simple count of public libraries, accessible by the general public		
B6 Notes	-			**C6 Notes**	No additional notes		

6 Transport and Roads

6.1 TR1.12

Technical indicator description sheet							
A1 Indicator short name	**Number of scheduled public transport access points added**	**A2 Alignment**	Modal shift from private to public transport and NMT	**A7 Rationale**	The progressive roll-out of scheduled, high-quality public transport services to existing or new residential areas is a critical determinant of availability and convenience, thus modal shift. Measuring the addition of transport access points is one way of determining whether municipal public transport networks are being expanded.		
		A3 Results-chain level	Output	**A8 Definition**	The number of new public transport access points which have been constructed and are operational in terms of the municipality's functional responsibilities (thus excluding commuter rail stations). A scheduled public transport service access point is defined as a BRT station, taxi rank or multi-modal interchange forming part of the City's approved Integrated Public Transport Network, and which provides access to a scheduled public transport service with a minimum service frequency of 30 minutes during the workday morning peak. The access point should be the functional responsibility of the municipality, thereby excluding commuter rail stations in this instance.		
INDICATOR ASSIGNMENT	TR1.12	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Simple count of scheduled public transport access points added		
A5 Unit of measurement	Number of scheduled access points	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	SDF 11.2, COGTA B2B Level 2 Indicators (155)		
A11 Notes on calculation	Measured as at the end of the financial year.			**A12 Additional notes**	None		
Reporting responsibility	**Applies to Municipal Category**					**Readiness**	
Metro	**Metro**			**Yes**		**Tier 1**	
B1 Data Element	(1) Scheduled public transport service access points added	**B4 Source**	City GIS	**C1 Data Element**	-	**C4 Source**	-
B2 Frequency of collection	Annual	**B5 Units**	Number of scheduled public transport access points	**C2 Frequency of collection**	-	**C5 Units**	-
B3 Definition	A scheduled public transport service access point is defined as a BRT station, taxi rank or multi-modal interchange forming part of the City's approved Integrated Public Transport Network, and which provides access to a scheduled public transport service with a minimum service frequency of 30 minutes during the workday morning peak. The access point should be the functional responsibility of the municipality, thereby excluding commuter rail stations in this instance.			**C3 Definition**	-		
B6 Notes	None.			**C6 Notes**	-		

6.2 TR3.11

Technical indicator description sheet

A1 Indicator short name	**Number of weekday scheduled municipal bus passenger trips**	**A2 Alignment**	Reduced travel time	**A7 Rationale**	The number of scheduled passenger trips per weekday is a common and core indicator of the performance of the public transport system, which in turn is critical to modal shift and reduction in overall travel time.
		A3 Results-chain level	Output	**A8 Definition**	The number of passenger trips on scheduled municipal bus services, based on fare collection, per weekday.
INDICATOR ASSIGNMENT	TR3.11	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	Sum total of (1) the number of passenger trips on scheduled municipal bus services on weekdays
A5 Unit of measurement	Number of daily trips	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	ISO 18.3 and variation on Public Transport Performance Indicator 79. Annual number of passenger trips is an established performance metric for annual reporting by public transport services.
A11 Notes on calculation	Measured as at the end of the financial year.			**A12 Additional notes**	Excludes minibus taxis, who do not generate verifiable ticket sale data. This functional output indicator gauges the route coverage, frequency and efficiency of public transport network. It is preferred to the more technically accurate but problematic indicator looking only at theoretical system capacity, which is based on arbitrary seat turnover assumptions. The coverage, frequency and efficiency of public transport network has implications for both public and private travel times.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) The number of bus passenger trips on scheduled municipal bus services on weekdays	**B4 Source**	City Transport	**C1 Data Element**	-	**C4 Source**	-
B2 Frequency of collection	Annual	**B5 Units**	Number of bus passenger trips	**C2 Frequency of collection**	-	**C5 Units**	-
B3 Definition	The sum total of all bus passenger trips on scheduled municipal bus services based upon fare collection on weekdays			**C3 Definition**	-		
B6 Notes	Excludes any public transport that does not generate verifiable ticket day and excludes weekend trips.			**C6 Notes**	-		

6.3 TR4.21

Technical indicator description sheet

A1 Indicator short name	**Percentage of scheduled municipal bus services 'on time'**	**A2 Alignment**	Improved satisfaction with municipal bus services	**A7 Rationale**	The scheduled municipal bus service on-time performance indicator indicates the reliability of the service, and directly impacts on the productivity and thus earnings potential of the commuter.
		A3 Results-chain level	Output	**A8 Definition**	The percentage of all scheduled municipal bus service arrivals on-time, per year. 'Scheduled' refers to the time at which the bus is expected to arrive as a determination of whether it is 'on-time'. In the event that a municipality does not track 'arrivals', but does track 'departures', departures may be substituted uniformly across the TID but this should be specified in the Standard Operating Procedure for the indicator.
INDICATOR ASSIGNMENT	TR4.21	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	((1) Scheduled bus arrivals on time / (2) Total scheduled bus arrivals) x 100
A5 Unit of measurement	Percentage of scheduled bus services reporting to municipalities	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	SDG 11.2 Provide access to safe, affordable and sustainable public transport for all, improving road safety, notably by expanding public transport
A11 Notes on calculation	Measured as at the end of financial reporting period			**A12 Additional notes**	This only refers to buses within the municipal fleet.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) Scheduled bus arrivals on time	**B4 Source**	Bus operator performance reports to municipalities. Municipal Transport department/entity.	**C1 Data Element**	(2) Total scheduled bus arrivals	**C4 Source**	Bus operator performance reports to municipalities
B2 Frequency of collection	Annual	**B5 Units**	Number of arrivals	**C2 Frequency of collection**	Annual	**C5 Units**	Number of arrivals
B3 Definition	The number of scheduled bus services arriving on time. On time is defined as on or before the scheduled arrival time, to the minute.			**C3 Definition**	The total scheduled bus arrivals planned within the municipality over the entire reporting period.		
B6 Notes	In the event that a municipality does not track 'arrivals', but does track 'departures', departures may be substituted uniformly across the TID but this should be specified in the Standard Operating Procedure for the indicator.			**C6 Notes**	In the event that a municipality does not track 'arrivals', but does track 'departures', departures may be substituted uniformly across the TID but this should be specified in the Standard Operating Procedure for the indicator.		

6.4 TR5.21

Technical indicator description sheet

A1 Indicator short name	**Percentage of scheduled municipal buses that are low-entry**	**A2 Alignment**	Improved access to public transport and NMT	**A7 Rationale**	Providing universally accessible public transport services integrated with universally accessible NMT paths is an important contributor to public transport access. Upgrading buses for universal accessibility is an important step towards improving travel activity by persons who have a disability. The indicator tracks the percentage of the municipal fleet that are accessible for low-entry. This serves as a proxy for citizens actually accessing universal access services, which is an assumption best tested via means of an evaluation.
		A3 Results-chain level	Output	**A8 Definition**	The number of operational, scheduled municipal buses in the municipal fleet that have low entry access, as a percentage of the total number of buses in the municipal fleet. The municipal fleet is considered inclusive of both municipality-owned and municipality-contracted bus services.
INDICATOR ASSIGNMENT	TR5.21	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	((1) Number of buses that have low floor entry / (2) Total number of buses in the municipal fleet) * 100
A5 Unit of measurement	Percentage of buses	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	SDG 11.2, CCT Universal Access Policy
A11 Notes on calculation	None.			**A12 Additional notes**	The total municipal fleet includes all buses for which the municipality is ultimately responsible, while the low-entry buses refer only to those that are operational and scheduled at the time of calculation.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of buses that have low floor entry	**B4 Source**	City Transport	**C1 Data Element**	(2) Total number of buses in the municipal fleet	**C4 Source**	City Transport
B2 Frequency of collection	Annual	**B5 Units**	Number of buses	**C2 Frequency of collection**	Annual	**C5 Units**	Number of buses
B3 Definition	Number of buses that have low floor entry. Low floor entry is considered indicative of universal access. Buses include only those that are operational and scheduled for service. This includes part of the municipality-owned fleet or part of those provided by companies contracted by metro to provide service.			**C3 Definition**	Number of buses which are operated by the municipality or companies contracted to the municipality		
B6 Notes	Refers to operational buses only.			**C6 Notes**	The municipal fleet is considered inclusive of all municipality-contracted buses.		

6.5 TR6.11

Technical indicator description sheet							
A1 Indicator short name	**Percentage of unsurfaced road graded**	**A2 Alignment**	Improved quality of municipal road network	**A7 Rationale**	Regular grading of unsurfaced roads increases the safety of municipal roads		
		A3 Results-chain level	Output	**A8 Definition**	The length of unsurfaced road which has been graded as a percentage of overall unsurfaced road network.		
INDICATOR ASSIGNMENT	TR6.11	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	((1) Kilometers of municipal road graded / (2) Kilometers of unsurfaced road) * 100		
A5 Unit of measurement	Percentage of unsurfaced road network, by length	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	SDG 11.2 Provide access to safe, affordable and sustainable public transport for all, improving road safety, notably by expanding public transport		
A11 Notes on calculation	The graded road is measured as at the end of financial reporting period, cumulative for the entire financial year. However, the unsurfaced road is measured at the start of the financial year.			**A12 Additional notes**	None		
Reporting responsibility		**Applies to Municipal Category**				**Readiness**	
Metro		**Metro**		**Yes**		**Tier 1**	
B1 Data Element	(1) Kilometers of municipal road graded	**B4 Source**	City Transport	**C1 Data Element**	(2) Kilometers of unsurfaced road network	**C4 Source**	City transport dept.
B2 Frequency of collection	Annual	**B5 Units**	Km of road	**C2 Frequency of collection**	Annual	**C5 Units**	Km of road
B3 Definition	The distance (in KMs) of unsurfaced municipal road (class 3-5) which has been graded. This includes road that has only been graded once in the entire financial year.			**C3 Definition**	The total length of the municipal road network classified as unsurfaced in km		
B6 Notes	Measured as at the end of the financial reporting period as cumulative for the entire financial year.			**C6 Notes**	Measured as at the start of the financial reporting period.		

6.6 TR6.12

Technical indicator description sheet

A1 Indicator short name	**Percentage of surfaced municipal road lanes which has been resurfaced and resealed**	**A2 Alignment**	Improved quality of municipal road network	**A7 Rationale**	Regular maintenance of municipal roads increases the safety of roads
		A3 Results-chain level	Output	**A8 Definition**	The distance of surfaced municipal road lanes (class 3-5) in kilometres which has been resurfaced and resealed in terms of the total network length. Total network length is measured on a per lane basis, so a road that is four-lanes wide for 1 km has a total network length of 4kms for the purpose of this indicator.
INDICATOR ASSIGNMENT	TR6.12	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	((1) Kilometers of municipal road lanes resurfaced and resealed / (2) Kilometers of surfaced municipal road lanes) * 100
A5 Unit of measurement	Percentage of surfaced road lanes	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	SDG 11.2 Provide access to safe, affordable and sustainable public transport for all, improving road safety, notably by expanding public transport
A11 Notes on calculation	The resurfaced and resealed road is measured as at the end of financial reporting period, cumulative for the financial year. The surfaced road length is measured as the network length at the start of the financial year.			**A12 Additional notes**	None

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Kilometers of municipal road lanes resurfaced and resealed	**B4 Source**	City Transport	**C1 Data Element**	(2) Kilometers of surfaced municipal road lanes	**C4 Source**	City transport dept.
B2 Frequency of collection	Annual	**B5 Units**	Km of road	**C2 Frequency of collection**	Annual	**C5 Units**	Km of road
B3 Definition	The distance (in KMs) of surfaced municipal road lanes (class 3-5) which has been resurfaced and resealed			**C3 Definition**	The total municipal network length of road lanes classified as surfaced in km.		
B6 Notes	Measured as at the end of the financial reporting period as cumulative for the entire financial year.			**C6 Notes**	Measured as at the start of the financial reporting period.		

7 Water and Sanitation

7.1 WS1.1

Technical indicator description sheet							
A1 Indicator short name	**Percentage of households with access to basic sanitation**	**A2 Alignment**	Improved access to sanitation	**A7 Rationale**	South Africa comes from a history of separate development which has resulted in many areas not having access to basic sanitation services. A dedicated basic services development programme was initiated in 1994 to eradicate the historic backlogs. The target was for all people in South Africa to have access to a functioning basic sanitation facility by 2014. This target was however not met and a new target date of 2019 has been set, as per the 2014 Medium Term Strategic Framework.		
		A3 Results-chain level	Outcome	**A8 Definition**	Percentage of households accessing ("using") a toilet facility that meets minimum standards for basic sanitation out of all households within the municipality. Minimum standards are currently defined as a either a flush toilet (sewerage system) and/or flush toilet (septic tank), and/or a pit toilet connected to ventilation (VIP).		
INDICATOR ASSIGNMENT	WS1.1	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	((1) Number of households using a flush toilet (connected to sewerage system) + (2) Number of households using a flush toilet (with septic tank) + (3) Number of households using pit toilets with ventilation (VIP) / (4) Total number of households in the municipality) * 100.		
A5 Unit of measurement	Percentage of households	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	MTSF Outcome 9- Sub-outcome Members of society have sustainable and reliable access to basic services MBI indicator		
A11 Notes on calculation	Basic sanitation (meeting minimum requirements) includes access to either of the following: (1) Flush toilet (sewerage system), (2) Flush toilet (septic tank), and/or (3) VIP. In order to calculate, will need to obtain data for all individual service levels. It is therefore assumed that: Total number of households with access to sanitation is the sum of: (1) Access to sanitation: Flush toilet (connected to sewerage system) (2) Access to sanitation: Flush toilet (with septic tank) (3) Access to sanitation: Pit toilet with ventilation (VIP) Total number of households without access to sanitation is the sum of: (4) Access to sanitation: Chemical toilet (5) Access to sanitation: Pit toilet without ventilation (6) Access to sanitation: Bucket toilet (7) Access to sanitation: Other (8) Access to sanitation: No sanitation			**A12 Additional notes**	The MBI code for this performance indicator is SD127.		
Reporting responsibility		**Applies to Municipal Category**				**Readiness**	
National		**Metro**		**Yes**		**Tier 1**	
B1 Data Element	(1) Number of households using a flush toilet (connected to	**B4 Source**	StatsSA General Household Survey	**C1 Data Element**	(2) Number of households using a flush toilet (with septic tank)	**C4 Source**	StatsSA General Household Survey

	sewerage system)						
B2 Frequency of collection	Annual	**B5 Units**	Number of households	**C2 Frequency of collection**	Annual	**C5 Units**	Number of households with access to flush toilets (with septic tank).
B3 Definition	Number of households with access to a flush toilet (connected to sewerage system).			**C3 Definition**	Number of households with access to flush toilets (with septic tank).		
B6 Notes	None.			**C6 Notes**	None.		
D1 Data Element	(3) Number of households using a pit toilet with ventilation (VIP)	**D4 Source**	StatsSA General Household Survey	**E1 Data Element**	(4) Total number of households in the municipality	**E4 Source**	StatsSA General Household Survey
D2 Frequency of collection	Annual	**D5 Units**	Number (No.) of households	**E2 Frequency of collection**	Annual	**E5 Units**	Households
D3 Definition	Number of households with access to pit toilets with ventilation (VIP).			**E3 Definition**	This is the total number of households (of all types - formal, informal, and traditional) within the municipal area of jurisdiction		
D6 Notes	None.			**E6 Notes**	The data element is understood to be specific to the survey item used to obtain the data by Statistics South Africa to avoid issues arising from non-response during the survey.		

7.2 WS1.11

Technical indicator description sheet

A1 Indicator short name	**Number of new sewer connections meeting minimum standards**	**A2 Alignment**	Improved access to sanitation	**A7 Rationale**	South Africa comes from a history of separate development which has resulted in many areas not having access to basic sanitation services. A dedicated basic services development programme was initiated in 1994 to eradicate the historic backlogs. The target was for all people in South Africa to have access to a functioning basic sanitation facility by 2014. This target was however not met and a new target date of 2019 has been set, as per the 2014 Medium Term Strategic Framework.
		A3 Results-chain level	Output	**A8 Definition**	The total number of new sewer connections (defined as connections to a flush toilet connected to the sewerage system or a septic tank or a VIP toilet) made as part of state-subsidised human settlements development. This is inclusive of new sewer connections to communal facilities that meet basic sanitation standards.
INDICATOR ASSIGNMENT	WS1.11	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	The (1) number of new sewer connections to consumer units + (2) the number of new sewer connections to communal toilet facilities.
A5 Unit of measurement	Number of sewer connections	**A6 Frequency of reporting**	Quarterly	**A10 Indicator origin**	IWA aligned indicator MBI indicator
A11 Notes on calculation	Basic sanitation (meeting minimum requirements) includes sewer connections to either of the following: (1) Flush toilet (sewerage system) or (2) Flush toilet (septic tank) or a (3) pit latrine with ventilation pipe.			**A12 Additional notes**	The indicator measures connections and not the total number of delivery points (toilets) that may benefit from a single connection.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of new sewer connections to consumer units	**B4 Source**	WSA	**C1 Data Element**	(2) Number of new sewer connections to communal toilet facilities.	**C4 Source**	WSA
B2 Frequency of collection	Quarterly	**B5 Units**	Number of sewer connections	**C2 Frequency of collection**	Quarterly	**C5 Units**	Number of sewer connections
B3 Definition	Total number of new sanitation connections to consumer units meeting basic standards (defined as connections to a flush toilet connected to the sewerage system or a septic tank or a VIP toilet) made as part of state-subsidised human settlements development.			**C3 Definition**	Total number of new sanitation connections to communal toilet facilities meeting basic sanitation standards made as part of state-subsidised human settlements development.		
B6 Notes	The data element measures connections per consumer unit and not the total number of delivery points (toilets) that may benefit from a single connection.			**C6 Notes**	The data element measures connections and not the total number of delivery points (toilets) that may benefit from a single connection.		

7.3 WS2.1

Technical indicator description sheet

A1 Indicator short name	**Percentage of households with access to basic water supply**	**A2 Alignment**	Improved access to water	**A7 Rationale**	South Africa comes from a history of separate development which has resulted in many rural areas not having access to basic water supply. A dedicated basic services development programme was initiated in 1994 to eradicate the historic backlogs. The target was for all people in South Africa to have access to a functioning basic water supply by 2014. This target was however not met and a new target date of 2019 has been set, as per the 2014 Medium Term Strategic Framework.		
		A3 Results-chain level	Outcome	**A8 Definition**	Percentage of households with access to basic water supply, defined as the household's main source of drinking water is piped (tap) water inside dwelling/house, piped (tap) water inside yard, and/or piped water to a community stand: <200 m.		
INDICATOR ASSIGNMENT	WS2.1	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Number of households with the main source of drinking water (1) piped (tap) water inside dwelling/institution + (2) Number of households with the main source of drinking water piped (tap) water inside yard + (3) Number of households with the main source of drinking water piped (tap) water on community stand: distance less than 200m from dwelling/institution / (4) Total number of households in the municipality * 100		
A5 Unit of measurement	Percentage of households	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	MTSF Outcome 9- Sub-outcome Members of society have sustainable and reliable access to basic services MBI indicator		
A11 Notes on calculation	Basic water supply (meeting minimum requirements) includes access to either of the following: (1) Piped (tap) water inside dwelling/house (2) Piped (tap) water inside yard, and/or (3) Community stand: <200 m. In order to calculate, will need to obtain data for all individual service levels. It is therefore assumed that: Total number of households with access to water is the sum of: (1) Access to water: Piped (tap) water inside dwelling/house (2) Access to water: Piped (tap) water inside yard (3) Access to water: Piped (tap) water on community stand: distance less than 200m from dwelling/institution Total number of households without access to water is the sum of: (4) Access to water: Piped (tap) water on community stand: distance between 200m and 500m from dwelling/institution (5) Access to water: Piped (tap) water on community stand: distance between 500m and 1000m (1km) from dwelling /institution (6) Access to water: Piped (tap) water on community stand: distance greater than 1000m (1km) from dwelling/institution (7) Access to water: No access to piped (tap) water			**A12 Additional notes**	The MBI code for this performance indicator is SD126.		

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
National	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of households with the main source of drinking water	**B4 Source**	StatsSA General Household Survey	**C1 Data Element**	(2) Number of households with the main source of	**C4 Source**	StatsSA General Household Survey

	(1) piped (tap) water inside dwelling/institution				drinking water piped (tap) water inside yard		
B2 Frequency of collection	Annual	**B5 Units**	Number of households	**C2 Frequency of collection**	Annual	**C5 Units**	Number of households
B3 Definition	Number of households with the main source of drinking water (1) piped (tap) water inside dwelling/institution			**C3 Definition**	Number of households with the main source of drinking water piped (tap) water inside yard		
B6 Notes	None.			**C6 Notes**	None.		
D1 Data Element	(3) Number of households with the main source of drinking water piped (tap) water on community stand: distance less than 200m from dwelling/institution	**D4 Source**	StatsSA General Household Survey	**E1 Data Element**	(4) Total number of households in the municipality	**E4 Source**	StatsSA General Household Survey
D2 Frequency of collection	Annual	**D5 Units**	Number of households	**E2 Frequency of collection**	Annual	**E5 Units**	Households
D3 Definition	Number of households with the main source of drinking water piped (tap) water on community stand: distance less than 200m from dwelling/institution			**E3 Definition**	This is the total number of households (of all types - formal, informal, and traditional) within the municipal area of jurisdiction		
D6 Notes	None.			**E6 Notes**	The data element is understood to be specific to the survey item used to obtain the data by Statistics South Africa to avoid issues arising from non-response during the survey.		

7.4 WS2.11

Technical indicator description sheet

A1 Indicator short name	**Number of new water connections meeting minimum standards**	**A2 Alignment**	Improved access to water	**A7 Rationale**	South Africa comes from a history of separate development which has resulted in many rural areas not having access to basic water supply. A dedicated basic services development programme was initiated in 1994 to eradicate the historic backlogs. The target was for all people in South Africa to have access to a functioning basic water supply by 2014. This target was however not met and a new target date of 2019 has been set, as per the 2014 Medium Term Strategic Framework.
		A3 Results-chain level	Output	**A8 Definition**	Total number of new water connections meeting minimum standards (supply of water is Piped (tap) water inside dwelling/institution, Piped (tap) water inside yard, and/or Community stand: <200 m) as part of state-subsidised human settlements development. This is inclusive of new water connections to communal facilities that meet minimum standards.
INDICATOR ASSIGNMENT	WS2.11	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	The (1) number of new water connections to piped (tap) water + (2) number of new water connections to public/communal taps
A5 Unit of measurement	Number of water connections	**A6 Frequency of reporting**	Quarterly	**A10 Indicator origin**	IWA aligned indicator MBI indicator
A11 Notes on calculation	Acceptable water meeting minimum standards includes access to either of the following: (1) Piped (tap) water inside dwelling/institution, (2) Piped (tap) water inside yard, and/or (3) Community stand: <200 m.			**A12 Additional notes**	The indicator measures connections and not the total number of delivery points (taps) that may benefit from a single connection.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of new water connections to piped (tap) water	**B4 Source**	WSA	**C1 Data Element**	(2) Number of new water connections to public/communal facilities.	**C4 Source**	WSA
B2 Frequency of collection	Quarterly	**B5 Units**	Number of water connections	**C2 Frequency of collection**	Quarterly	**C5 Units**	Number of water connections
B3 Definition	Total number of new water connections to piped (tap) water as part of state-subsidised human settlements development. This is inclusive of piped (tap) water in the dwelling/institution or in the yard.			**C3 Definition**	Total number of new water connections to public/communal taps as part of state-subsidised human settlements development.		
B6 Notes	This does not include borehole water or water in a neighbours yard.			**C6 Notes**	The data element measures connections and not the total number of delivery points (taps) that may benefit from a single connection.		

7.5 WS3.1

Technical indicator description sheet

A1 Indicator short name	**Frequency of sewer blockages**	**A2 Alignment**	Improved quality of water and sanitation services	**A7 Rationale**	Operations and maintenance typically includes the day-to-day activities necessary for the water services system infrastructure and equipment to perform their intended function. To accomplish this, the municipality must operate the systems and equipment responsibly and maintain them properly. Maintaining infrastructure in sound condition is a key element of providing sustainable municipal services. If a poor maintenance regime is followed, an asset may not reach its design life and will have to be replaced early. Since 1994 the focus of Government has been on the provision of basic water and sanitation infrastructure. The effective operation and maintenance of this infrastructure is an essential part of service delivery that has been much neglected. An assessment of 1689 water schemes found that at least 10% were dysfunctional, while a further 20 to 24% were experiencing serious water security problems, and 48% needed urgent refurbishment. Functionality issues can mostly be ascribed to poor management. In order to ensure long term effective water services delivery, an asset management approach must be followed.
		A3 Results-chain level	Outcome	**A8 Definition**	Number of blockages in sewers per 100km of sewer length per year. Blockages are defined as reported or logged blockages that result in an obstruction of system flow which may be caused by roots, obstructive items or other pipeline disruption.
INDICATOR ASSIGNMENT	WS3.1	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Number of blockages in sewers that occurred during the assessment period / [(2) Total sewer length at the reference date/100]
A5 Unit of measurement	Number of blockages	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	IWA indicator MBI indicator
A11 Notes on calculation	Pumping station blockages shall not be included. Include blockages only where these are the responsibility of the wastewater undertaking entity. This PI may be assessed for periods shorter than one year, but it is recommended that it be used only where data for the variables have been collected for at least a year. Where it has been used for shorter time periods, special consideration is required when used for comparisons, either internal or external to the undertaking.			**A12 Additional notes**	The IWA code for this performance indicator is wOp34. The MBI code for this performance indicator is OM5. MBI formula: OM5 (%) = wD38 / (wC1/100)

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of sewer blockages (wastewater)	**B4 Source**	WSA	**C1 Data Element**	(2) Total sewer length (wastewater) in KMs	**C4 Source**	WSA
B2 Frequency of collection	Annual	**B5 Units**	Number sewer blockages	**C2 Frequency of collection**	Annual	**C5 Units**	KMs of sewers
B3 Definition	Number of blockages that occurred in sewers during the assessment period.			**C3 Definition**	Total length of sewers managed by the undertaking entity at the reference date. Service connections are excluded.		
B6 Notes	The IWA code for this performance indicator is wD38. The MBI code for this performance indicator is wD38. Pumping station blockages shall not be included. Include blockages in service connections only where these are the responsibility of the wastewater undertaking entity.			**C6 Notes**	The IWA code for this performance indicator is wC1. The MBI code for this performance indicator is wC1. It does not include lengths associated with property connection sewers or conduits carrying treated effluent.		

7.6 WS3.11

Technical indicator description sheet							
A1 Indicator short name	**Percentage of complaints/callouts responded to within 24 hours (sanitation/ wastewater)**	**A2 Alignment**	Improved quality of water and sanitation services	**A7 Rationale**	Service quality or customer satisfaction is measured through customer surveys and the monitoring of complaints/ protests, continuity of supply, affordability and service level indicators. Municipalities face significant challenges as they strive to increase the quality and manage the costs of services to their customers. Service delivery protests have become a regular feature of South African life. Poor services can therefore make it difficult to attract business or industry to an area and will limit job opportunities for residents. Protest and unrest is bad for the local economy, leading to perceptions of instability. Without income from services, the municipality will either be running a bankrupt business or be highly reliant on grants. Resolving these challenges thus brings direct economic benefits to a municipality.	
		A3 Results-chain level	Output	**A8 Definition**	Percentage complaints/callouts (outages logged with the municipality) responded to within 24 hours (sanitation/wastewater). Responded to means that someone is on site and has initiated a process of resolving the matter within 24 hours. This does not mean the complaint/callout was resolved, only that the matter was logged, appraised and responded to within 24 hours of notification.		
INDICATOR ASSIGNMENT	WS3.11	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Number of complaints/callouts (outages logged on the municipal system) responded to within 24 hours (sanitation/wastewater)/ (2) Total wastewater/sanitation complaints/callouts received * 100		
A5 Unit of measurement	Percentage of outages	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	MBI indicator IWA aligned indicator		
A11 Notes on calculation	Measured at the end of each year. Some municipalities have manual systems and measurements but may be difficult to verify initially. There are aspirations to progress this indicator to a measure of 'resolution' rather than 'response' in the future.			**A12 Additional notes**	The IWA code for this performance indicator is wQS27. Formula: wQS27 (%) = wF20 / wF12 x 100. The MBI code for this performance indicator is SD124. Formula: SD124 (%) = wF20 / wF12 x 100. A suggestion was made to include a measure of interruptions.		
Reporting responsibility		**Applies to Municipal Category**				**Readiness**	
Metro		**Metro**		**Yes**		**Tier 2**	
B1 Data Element	(1) Number of callouts/complaints responded to within 24 hours (sanitation/ wastewater)	**B4 Source**	WSA	**C1 Data Element**	(2) Total number of complaints/callouts (sanitation/wastewater)	**C4 Source**	WSA
B2 Frequency of collection	Annual	**B5 Units**	Number of sanitation/wastewater service complaints responded to	**C2 Frequency of collection**	Annual	**C5 Units**	Number of sanitation/wastewater service complaints/callouts logged
B3 Definition	Total number of complaints/callouts responded to within 24 hours relating to wastewater system performance, during the assessment period. This variable includes all direct, telephone, and written complaints and tracks them from the time of official capture until a response confirming an on site appraisal has been logged on the system.			**C3 Definition**	Number of direct, telephone, and written complaints of quality of service logged with the municipality during the assessment period.		

B6 Notes	The IWA code of this data element is wF20. The MBI code of this data element is wF20.	**C6 Notes**	The IWA code for this data element is wF12. The MBI code for this data element is wF12.

7.7 WS3.2.

Technical indicator description sheet					
A1 Indicator short name	**Frequency of water mains failures**	**A2 Alignment**	Improved quality of water and sanitation services	**A7 Rationale**	Operations and maintenance typically includes the day-to-day activities necessary for the water services system infrastructure and equipment to perform their intended function. To accomplish this, the municipality must operate the systems and equipment responsibly and maintain them properly. Maintaining infrastructure in sound condition is a key element of providing sustainable municipal services. If a poor maintenance regime is followed, an asset may not reach its design life and will have to be replaced early. Since 1994 the focus of Government has been on the provision of basic water and sanitation infrastructure. The effective operation and maintenance of this infrastructure is an essential part of service delivery that has been much neglected. An assessment of 1689 water schemes found that at least 10% were dysfunctional, while a further 20 to 24% were experiencing serious water security problems, and 48% needed urgent refurbishment. Functionality issues can mostly be ascribed to poor management. In order to ensure long term effective water services delivery, an asset management approach must be followed.
		A3 Results-chain level	Outcome	**A8 Definition**	Number of water mains failures per 100km of mains pipe per year. "Mains" refers to all transmission and distribution pipes for water, the ownership of which is vested in the municipality for the purpose of conveying water to consumers.
INDICATOR ASSIGNMENT	WS3.2	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Number of water mains failures during the assessment period (including failures of valves and fittings) / [(2)Total mains length in KMs/ 100]
A5 Unit of measurement	Number of mains failures	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	IWA indicator MBI indicator
A11 Notes on calculation	It is recommended that this indicator is not assessed for periods shorter than one year, since it may lead to misleading conclusions. If a shorter assessment period cannot be avoided, special care is required in result interpretation. External comparisons on such time bases must be avoided. If mains failures are to be used for regulating objectives, the use of a complementary indicator, similar to IWA Op31 but excluding failures by third parties is advisable, as they are not a direct fault of the water undertaking. Number should exclude repairs under active leakage control. Only consider pipelines under the control of or managed by the municipality.			**A12 Additional notes**	The MBI code for this performance indicator is OM4. Formula: OM4 = D28 / C8 x 100 The IWA code for this performance indicator is Op31. Formula: Op31 = D28 / C8 x 100

Reporting responsibility	Applies to Municipal Category	Readiness

Metro		Metro		Yes		Tier 1	
B1 Data Element	(1) Number of mains pipes' failures (water)	**B4 Source**	WSA	**C1 Data Element**	(2) Total mains length (water) in KMs	**C4 Source**	WSA
B2 Frequency of collection	Annual	**B5 Units**	Number mains failures	**C2 Frequency of collection**	Annual	**C5 Units**	KM mains length
B3 Definition	Number of mains failures during the assessment period, including failures of valves and fittings.			**C3 Definition**	Total transmission and distribution mains length (service connections/communication pipes not included), at the reference date.		
B6 Notes	The IWA code for this data element is D28.			**C6 Notes**	The IWA code for this data element is C8. The MBI code for this data element is C8. Mains that are not yet in use or have been put out of service on a permanent basis shall not be accounted for.		

7.8 WS3.21

Technical indicator description sheet

A1 Indicator short name	**Percentage of complaints/callouts responded to within 24 hours (water)**	**A2 Alignment**	Improved quality of water and sanitation services	**A7 Rationale**	Service quality or customer satisfaction is measured through customer surveys and the monitoring of complaints/ protests, continuity of supply, affordability and service level indicators. Municipalities face significant challenges as they strive to increase the quality and manage the costs of services to their customers. Service delivery protests have become a regular feature of South African life. Poor services can therefore make it difficult to attract business or industry to an area and will limit job opportunities for residents. Protest and unrest is bad for the local economy, leading to perceptions of instability. Without income from services, the municipality will either be running a bankrupt business or be highly reliant on grants. Resolving these challenges thus brings direct economic benefits to a municipality.
		A3 Results-chain level	Output	**A8 Definition**	Percentage complaints/callouts (outages) responded to within 24 hours (water). Responded to means that someone is on site and has initiated a process of resolving the matter within 24 hours. This does not mean the complaint/callout was resolved, only that the matter was logged, appraised and responded to within 24 hours of notification.
INDICATOR ASSIGNMENT	WS3.21	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Number of complaints/callouts (outages) responded to within 24 hours (water)/ (2) Total water service complaints/callouts received * 100
A5 Unit of measurement	Percentage of outages	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	MBI indicator IWA aligned indicator
A11 Notes on calculation	Measured at the end of each year. Some municipalities have manual systems and measurements but may be difficult to verify initially. There are aspirations to progress this indicator to a measure of 'resolution' rather than 'response' in the future.			**A12 Additional notes**	The MBI code for this performance indicator is SD123. Formula: SD123 (%) = F137 / F15 x 100. A suggestion was made to include a measure of interruptions.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) Number of callouts/complaints responded to within 24 hours (water)	**B4 Source**	WSA	**C1 Data Element**	(2) Total water service complaints/callouts	**C4 Source**	WSA
B2 Frequency of collection	Annual	**B5 Units**	Number of water service complaints responded to	**C2 Frequency of collection**	Annual	**C5 Units**	Number of water service complaints logged
B3 Definition	Total number of complaints/callouts responded to within 24 hours relating to water system performance, during the assessment period. This variable includes all direct, telephone, and written complaints and tracks them from the time of official capture until a response has been logged on the system.			**C3 Definition**	Number of direct, telephone, and written complaints of quality of service during the assessment period.		
B6 Notes	The MBI code for this data element is F137. In the case of multi-function municipalities, only the service complaints related to water supply activities shall be considered.			**C6 Notes**	he IWA code for this data element is F15. The MBI code for this data element is F15. In the case of multi-function municipalities, only the service complaints related to water supply activities shall be considered.		

7.9 WS3.3

Technical indicator description sheet

A1 Indicator short name	**Frequency of unplanned water service interruptions**	**A2 Alignment**	Improved quality of water and sanitation services	**A7 Rationale**	Service quality or customer satisfaction is measured through customer surveys and the monitoring of complaints/ protests, continuity of supply, affordability and service level indicators. Municipalities face significant challenges as they strive to increase the quality and manage the costs of services to their customers. Service delivery protests have become a regular feature of South African life. Poor services can therefore make it difficult to attract business or industry to an area and will limit job opportunities for residents. Protest and unrest is bad for the local economy, leading to perceptions of instability. Without income from services, the municipality will either be running a bankrupt business or be highly reliant on grants. Resolving these challenges thus brings direct economic benefits to a municipality.
		A3 Results-chain level	Outcome	**A8 Definition**	Number of interruptions averaged per 1000 service connections per year. Interruptions are understood as occuring at the source and do not include the number of consumer units affected by an interruption.
INDICATOR ASSIGNMENT	WS3.3	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1)Number of interruptions during the assessment period / [(2)Total number of water service connections/1000]
A5 Unit of measurement	Number of service interruptions	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	IWA indicator MBI indicator
A11 Notes on calculation	This indicator may be applied when service connections density > 20 / km of mains (urban distribution systems). IWA QS15 should be used when service connections density < 20 / km of mains (rural distribution systems and bulk supply systems). The indicator does not specify the duration of interruptions so any interruption longer than 12 hours is considered within the indicator.			**A12 Additional notes**	The IWA code for this performance indicator is QS14. Formula: QS14 (%) = D36 / C24 x 1000. The MBI code for this performance indicator is SD11_1. Formula: SD11_1 (%) = D36 / C24 x 1000.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of water service interruptions	**B4 Source**	WSA	**C1 Data Element**	(2) Total number of water service connections	**C4 Source**	WSA

B2 Frequency of collection	Annual	**B5 Units**	Number of service interruptions	**C2 Frequency of collection**	Annual	**C5 Units**	Number of service connections
B3 Definition	Total number of water service interruptions during the assessment period. Interruptions are understood as occurring at the source and do not include the number of consumer units affected by a single interruption.			**C3 Definition**	Total number of service connections, at the reference date. The authorised pipe connecting the main to the measurement point or to the customer stop-valve, as applicable.		
B6 Notes	The IWA code for this data element is D36. The MBI code for this data element is D36 In this context, only the unplanned (even if notified) or un-notified water supply interruption to customers with a duration (measured to full restoration of supply) of more than 12 hours, caused by bursts or failures in the water supply system and the subsequent repair/renewal measures, shall be accounted for. Includes also those planned interruptions that exceed the notified period. Interruptions inherent to a systematic intermittent supply must not be accounted in this variable.			**C6 Notes**	The IWA code for this data element is C24. The MBI code for this data element is C24. Where several registered customers or individually occupied premises share a physical connection or tapping off the main (e.g. apartment buildings), this will still be regarded as the one connection for the purposes of the applicable PI, irrespective of the configuration and number of customers or premises. All active service connections shall be accounted for: connections to registered customers (residential and non-residential, temporary connections included), irrigation and fire hydrants, public taps or any other authorised consumption points not directly connected to the mains. Inactive connections to vacant buildings shall not be accounted for.		

7.10 WS4.1

Technical indicator description sheet

A1 Indicator short name	**Percentage of drinking water compliance to SANS 241**	**A2 Alignment**	Improved quality of water (incl. wastewater)	**A7 Rationale**	If the water that is provided is of a poor quality, it will contribute to the creation of unhealthy and unsafe living environments. Monitoring the quality of drinking water helps protect health, and regularly monitoring water quality is a crucial part of identifying any existing problems, or any issues that could emerge in the future. Inadequate water supply and sanitation is a direct contributor to high levels of diarrhoea, dysentery and other diseases in Southern Africa and a 1997 study found that the total social cost of diarrhoeal disease was at least 1% of the GDP in South Africa (R3.4 billion). The 2010 General Household Survey showed that there were over 60,000 cases of childhood diarrhoea per month and approximately 9,000 child diarrhoeal deaths in the year.
		A3 Results-chain level	Outcome	**A8 Definition**	The percentage of water samples measured that comply with the SANS 241 requirements over a 12 month period. See the SANS 241 requirements for a detailed breakdown of the various tests involved.
INDICATOR ASSIGNMENT	WS4.1	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Number of water samples that complied with SANS 241 requirements / (2) Total number of water samples tested * 100
A5 Unit of measurement	Percentage of tested samples	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	MBI indicator
A11 Notes on calculation	SANS 241 compliance requirements are based on population size and nature of the determinant (e.g. acute health, chronic health, aesthetic, etc.). Refer to Table 4 of SANS 241-2:2015. The calculations are made on the basis of compliance determinant, and not per sample. The indicator formula provides a calculation per compliance determinant.			**A12 Additional notes**	The MBI code for this performance indicator is PQ6. Formula = PQ6 (%) = (D114 / D113) x 100

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of water sample tests complying with SANS 241 requirements	**B4 Source**	WSA	**C1 Data Element**	(2) Total number of water samples tested	**C4 Source**	WSA
B2 Frequency of collection	Annual	**B5 Units**	Number of water sample tests	**C2 Frequency of collection**	Annual	**C5 Units**	Number of tests conducted
B3 Definition	Total number of tests conducted on water samples that comply with the numerical limits of SANS 241, during the assessment period. If present at certain unacceptable levels these determinants can result in an immediate health risk or consequence.			**C3 Definition**	Total number of water sample tests during the assessment period.		
B6 Notes	The MBI code for this data element is D114. The data element does not include operational data as per requirements associated with Blue Drop.			**C6 Notes**	The MBI code for this data element is D113.		

7.11 WS4.2

Technical indicator description sheet

A1 Indicator short name	**Wastewater quality compliance according to the water use license**	**A2 Alignment**	Improved quality of water (incl. wastewater)	**A7 Rationale**	Many WWTWs operate above capacity, are in poor condition and deteriorating due to inadequately trained operators and a lack of maintenance. Growing water scarcity (and associated increased reuse of treated effluent) will mean that effluent discharge standards become more important. Furthermore, water treatment works might be located downstream of wastewater treatment works, and untreated or poorly treated effluent is then used as raw water input to these water treatment works. Monitoring the quality of treated effluents from wastewater treatment facilities helps protect health, and aids identification and control of pollution impacts to the environment. Inadequate water supply and sanitation is a direct contributor to high levels of diarrhoea, dysentery and other diseases in Southern Africa and a 1997 study found that the total social cost of diarrhoeal disease was at least 1% of the GDP in South Africa (R3.4 billion). The 2010 General Household Survey showed that there were over 60,000 cases of childhood diarrhoea per month and approximately 9,000 child diarrhoeal deaths in the year.
		A3 Results-chain level	Outcome	**A8 Definition**	Percentage of Wastewater Quality Compliance to specified licence/permit/authorisation requirements tested during the municipal financial year. The percentage is calculated on the basis of aggregated results per Water Use License determinant.
INDICATOR ASSIGNMENT	WS4.2	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	Sum of the (1) Number of wastewater samples tested per determinant that meet compliance to specified water use license requirements / (2) Total wastewater samples tested for all determinants over the municipal financial year * 100
A5 Unit of measurement	Percentage of tested samples	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	MBI indicator, informed by ISO 37120 indicators 20.2, 20.3, 20.4 and 20.5
A11 Notes on calculation	None			**A12 Additional notes**	The MBI code for this performance indicator is PQ27. Formula: PQ27 (%) = ((wD172 / wD171) x 100) MBI also considers the following: Wastewater quality compliance: ALL determinants (ALL determinants tested that comply to specified licence/permit/authorisation requirements / total determinants tested, during the assessment period) (%) (PQ16).

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Number of wastewater samples tested per determinant that meet compliance to specified water use license requirements	**B4 Source**	WSA	**C1 Data Element**	(2) Total wastewater samples tested for all determinants over the municipal financial year	**C4 Source**	WSA

B2 Frequency of collection	Annual	**B5 Units**	Number of compliant tests	**C2 Frequency of collection**	Annual	**C5 Units**	Total number of tests conducted
B3 Definition	Total number of tests conducted for Chemical Oxygen Demand and any other water use licensing determinant requirements tested for that are deemed compliant.			**C3 Definition**	Total number of tests conducted for Chemical Oxygen Demand (COD) and any other water use licensing determinant requirements during the assessment period.		
B6 Notes	The MBI code for this data element is wD172.			**C6 Notes**	The MBI code for this data element is wD171.		

7.12 WS5.1

Technical indicator description sheet							
A1 Indicator short name	**Percentage of non-revenue water**	**A2 Alignment**	Improved water sustainability	**A7 Rationale**	The purpose of this measure is to determine the percentage loss of potential revenue from water service through kilolitres of water purchased but not sold as a result of losses incurred through theft (illegal connections), non- or incorrect metering or wastage as a result of deteriorating water infrastructure. Water consumption is currently too high and there is poor water use efficiency, and little water conservation and demand management implementation. In particular, the increased percentage of the population with access to water services (as the current backlog is addressed), and the expected improvement in the standard of living, is likely to result in a greater per capita water consumption. New water augmentation schemes will also be costly and are likely to be detrimental to the environment. Effective water conservation and demand management brings about the required change to current water use management practices, and there are opportunities to increase water use efficiency in all water use sectors.		
		A3 Results-chain level	Outcome	**A8 Definition**	Non-revenue water is defined as the sum of unbilled authorized consumption, apparent losses (unbilled unauthorised consumption and meter inaccuracies) and real losses (from transmission mains, storage facilities, distribution mains or service connections).		
INDICATOR ASSIGNMENT	WS5.1	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	((1)Number of Kilolitres Water Purchased or Purified - (2)Number of Kilolitres Water Sold) / (1)Number of Kilolitres Water Purchased or Purified * 100		
A5 Unit of measurement	Percentage of kilolitres	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	DWS indicator, Previous generation BEPP indicator		
A11 Notes on calculation	Calculated as at the last day of the financial year under investigation			**A12 Additional notes**	It is expected that implementation of the free basic service policy is included in the calculation for sale of water.		
Reporting responsibility	**Applies to Municipal Category**					**Readiness**	
Metro	**Metro**			**Yes**		**Tier 1**	
B1 Data Element	(1)Number of Kilolitres Water Purchased or Purified	**B4 Source**	WSA	**C1 Data Element**	(2) Number of kilolitres of water sold	**C4 Source**	WSA
B2 Frequency of collection	Annual	**B5 Units**	Number of kilolitres	**C2 Frequency of**	Annual	**C5 Units**	Number of kilolitres

				collection			
B3 Definition	Kilolitres of bulk water supplied is measured as the purchase of bulk water from a water board, Department of Water and Sanitation or internal department.			**C3 Definition**	Sum of the kilolitres of water sold throughout the city to all end users		
B6 Notes	None			**C6 Notes**	-		

7.13 WS5.2

Technical indicator description sheet

A1 Indicator short name	**Total water losses**	**A2 Alignment**	Improved water sustainability	**A7 Rationale**	Water consumption is currently too high and there is poor water use efficiency, and little water conservation and demand management implementation. In particular, the increased percentage of the population with access to water services (as the current backlog is addressed), and the expected improvement in the standard of living, is likely to result in a greater per capita water consumption. New water augmentation schemes will also be costly and are likely to be detrimental to the environment. Effective water conservation and demand management brings about the required change to current water use management practices, and there are opportunities to increase water use efficiency in all water use sectors.
		A3 Results-chain level	Outcome	**A8 Definition**	Total (apparent and real) losses, expressed in terms of annual volume lost per service connection per day.
INDICATOR ASSIGNMENT	WS5.2	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	Sum total of water losses [((1) System input volume-(2) Authorised consumption volume) in m³ x 1000) / (365 x (2) Number of service connections)]
A5 Unit of measurement	Liters per connection per day	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	ISO 37120 Indicator 21.7 MBI indicator IWA indicator
A11 Notes on calculation	Water losses can be calculated as the System Input Volume (see data element 2) minus the Authorised Consumption (see data element 3). This indicator is adequate for urban distribution systems. Used if service connections density is > 20 / km of mains. IWA Op24 shall be used if service connections density is < 20 / km of mains (e.g. rural distribution systems or bulk supply systems). IWA PI is L/connection/year but converted to L/connection/day as this is more commonly used in practice. Although IWA/MBI specify m³/connection/year, DWS traditionally requires this performance indicator in units of L/connection/day. Therefore, in order to calculate this performance indicator, a unit conversion is required from m³ to L. To do this, the Water Losses in m³ is multiplied by a 1000 to convert this to Water Losses in L.			**A12 Additional notes**	The IWA code for this performance indicator is Op23. The MBI code for this performance indicator is WDM11. IWA (and MBI) alternatively specify Water losses in different units to DWS, notably Water losses (m³/connection/year). Water losses (m³/connection/year) can be calculated using the following formula: (Water losses X 365 / assessment period) / number of service connections.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Metro	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) Total system input volume	**B4 Source**	WSA	**C1 Data Element**	(2) Total authorised consumption	**C4 Source**	WSA
B2 Frequency of collection	Annual	**B5 Units**	m^3	**C2 Frequency of collection**	Annual	**C5 Units**	m^3
B3 Definition	The water volume input of the global system during the assessment period. System input should include water abstracted and all imported water (raw and treated) (IWA A3).			**C3 Definition**	Total volume of metered and/or non-metered water that, during the assessment period, is taken by registered customers, by the water supplier itself, or by others who are implicitly or explicitly authorised to do so by the water supplier, for residential, commercial, industrial or public purposes. It includes water exported.		
B6 Notes	The IWA code for this data element is A3. The MBI code for this data element is A3. It is recommended that this variable is not assessed for periods shorter than one year, since it may lead to misleading conclusions. If a shorter assessment period cannot be avoided, special care is required in result interpretation. External comparisons on such time bases must be avoided. Traditionally, this data element is recorded in m^3, however, Water Conservation and Demand Management performance indicators can be specified in either m^3 or L and a conversion might be required when calculating the performance indicator.			**C6 Notes**	The IWA code for this data element is A14. The MBI code for this data element is A14. Note that authorised consumption may include items such as fire fighting and training, flushing of mains and sewers, street cleaning, watering of municipal gardens, public fountains, frost protection, building water, etc. These may be billed or unbilled, metered or unmetered, according to local practice. Traditionally, this data element is recorded in m^3, however, Water Conservation and Demand Management performance indicators can be specified in either m^3 or L and a conversion might be required when calculating the performance indicator.		
D1 Data Element	(3) Service connections (water)	**D4 Source**	WSA	**E1 Data Element**	-	**E4 Source**	-
D2 Frequency of collection	Annual	**D5 Units**	Number of service connections.	**E2 Frequency of collection**	-	**E5 Units**	-
D3 Definition	Total number of service connections, at the reference date. The authorised pipe connecting the main to the measurement point or to the customer stop-valve, as applicable.			**E3 Definition**	-		
D6 Notes	The IWA code for this data element is C24. The MBI code for this data element is C24. Where several registered customers or individually occupied premises share a physical connection or tapping off the main (e.g. apartment buildings), this will still be regarded as the one connection for the purposes of the applicable PI, irrespective of the configuration and number of customers or premises. All active service connections shall be accounted for: connections to registered customers (residential and non-residential, temporary connections included), irrigation and fire hydrants, public taps or any other authorised consumption points not directly connected to the mains. Inactive connections to vacant buildings shall not be accounted for.			**E6 Notes**	-		

7.14 WS5.3

Technical indicator description sheet

A1 Indicator short name	**Total per capita consumption of water**	**A2 Alignment**	Improved water sustainability	**A7 Rationale**	South Africa is a water scarce country. Current non-revenue water for South Africa is estimated to be 39% and associated water losses are 37%. Current indications are that non-revenue water costs South Africa approximately R7 billion Annual. Average per capita consumption is approximately 223 litres which is high for a water scarce country. Water consumption is currently too high and there is poor water use efficiency, and little water conservation and demand management implementation. In particular, the increased percentage of the population with access to water services (as the current backlog is addressed), and the expected improvement in the standard of living, is likely to result in a greater per capita water consumption. New water augmentation schemes will also be costly and are likely to be detrimental to the environment. Effective water conservation and demand management brings about the required change to current water use management practices, and there are opportunities to increase water use efficiency in all water use sectors.
		A3 Results-chain level	Outcome	**A8 Definition**	The total system input volume minus the total exported (raw and treated) water per population per day of the assessment period.
INDICATOR ASSIGNMENT	WS5.3	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) System input volume – Exported [(2)raw + (3) treated] water in m³ x 1000) / (365 x (4) Municipal population)
A5 Unit of measurement	Liters per capita per day	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	ISO 37120 indicator 21.5 IWA indicator MBI indicator
A11 Notes on calculation	The exported water is the sum of both raw exported and treated exported water. In order to calculate this performance indicator, a unit conversion is required from m³ to L. To do this, the water volume data in m³ is multiplied by a 1000 to convert this to L.			**A12 Additional notes**	The IWA code for this performance indicator is CI70. The MBI code for this performance indicator is WDM2.

Reporting responsibility	**Applies to Municipal Category**		**Readiness**
Shared	**Metro**	**Yes**	**Tier 1**

B1 Data Element	(1) System input volume	**B4 Source**	WSA	**C1 Data Element**	(2) Exported raw water	**C4 Source**	WSA
B2 Frequency of collection	Annual	**B5 Units**	m³	**C2 Frequency of collection**	Annual	**C5 Units**	m³
B3 Definition	The water volume input of the global system during the assessment period. System input should include water abstracted and all imported water (raw and treated).			**C3 Definition**	Total volume of raw water transferred to other water undertaking or to another system from the same supply area during the assessment period.		
B6 Notes	The IWA and MBI code for this data element is A3. Traditionally, this data element is recorded in m³, however, Water Conservation and Demand Management performance indicators can be specified in either m³ or L and a conversion might be required when calculating the performance indicator.			**C6 Notes**	The IWA and MBI code for this data element is A5. Traditionally, this data element is recorded in m³, however, Water Conservation and Demand Management performance indicators can be specified in either m³ or L and a conversion might be required when calculating the performance indicator.		
D1 Data Element	(3) Exported treated water	**D4 Source**	WSA	**E1 Data Element**	(4)Total population of the municipality	**E4 Source**	StatsSA Mid-Year Population Estimate
D2 Frequency of collection	Annual	**D5 Units**	m³	**E2 Frequency of collection**	Annual	**E5 Units**	Number of people
D3 Definition	Total volume of treated water exported to other water undertaking or to another system from the same supply area during the assessment period. These transfers can occur anywhere downstream of the treatment plants or at any point where the water is assumed as treated by the water undertaking.			**E3 Definition**	Estimated population of the municipality in the year		
D6 Notes	The IWA and MBI code for this data element is A7. Traditionally, this data element is recorded in m³, however, Water Conservation and Demand Management performance indicators can be specified in either m³ or L and a conversion might be required when calculating the performance indicator.			**E6 Notes**	-		

7.15 WS5.31

Technical indicator description sheet							
A1 Indicator short name	**Percentage of total water connections metered**	**A2 Alignment**	Improved water sustainability	**A7 Rationale**	Water consumption is currently too high and there is poor water use efficiency, and little water conservation and demand management implementation. In particular, the increased percentage of the population with access to water services (as the current backlog is addressed), and the expected improvement in the standard of living, is likely to result in a greater per capita water consumption. New water augmentation schemes will also be costly and are likely to be detrimental to the environment. Effective water conservation and demand management brings about the required change to current water use management practices, and there are opportunities to increase water use efficiency in all water use sectors.		
		A3 Results-chain level	Output	**A8 Definition**	The number of metered water connections as a percentage of the total number of connections in the municipality.		
INDICATOR ASSIGNMENT	WS5.31	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Number of water connections metered / [(1)Number of connections metered + (2) Number of connections unmetered] * 100		
A5 Unit of measurement	Percentage of water connections	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	MBI Indicator		
A11 Notes on calculation	None			**A12 Additional notes**	The MBI code for this performance indicator is SD101. Formula: SD101 (%) = CI54_1 / (CI54_1+CI54_2) x 100. There will be instances when unmetered connections are unknown and not accounted for in this indicator. However, the intention is to reduce and potentially eliminate these over time.		
Reporting responsibility		**Applies to Municipal Category**				**Readiness**	
Metro		**Metro**		**Yes**		**Tier 1**	
B1 Data Element	(1) Number of water service connections - metered	**B4 Source**	WSA	**C1 Data Element**	(2) Number of water service connections - unmetered	**C4 Source**	WSA
B2 Frequency of collection	Annual	**B5 Units**	Number of water services connections	**C2 Frequency of collection**	Annual	**C5 Units**	Number of water services connections
B3 Definition	Total number of service connections that are metered, at the reference date.			**C3 Definition**	Total number of water service connections that are unmetered, at the reference date.		
B6 Notes	The MBI code for this data element is CI54_1. Metered services allow the municipality to determine the volume of water used by a customer and therefore bill accordingly. Ideally all connections should be metered.			**C6 Notes**	The MBI code for this data element is CI54_2. Where services are unmetered, the municipality is unable to determine the volume of water used by a customer and needs to estimate volumes accordingly.		

7.16 WS5.4

Technical indicator description sheet

A1 Indicator short name	**Percentage of water reused**	**A2 Alignment**	Improved water sustainability	**A7 Rationale**	Water consumption is currently too high and there is poor water use efficiency, and little water conservation and demand management implementation. In particular, the increased percentage of the population with access to water services (as the current backlog is addressed), and the expected improvement in the standard of living, is likely to result in a greater per capita water consumption. New water augmentation schemes will also be costly and are likely to be detrimental to the environment. Effective water conservation and demand management brings about the required change to current water use management practices, and there are opportunities to increase water use efficiency in all water use sectors.
		A3 Results-chain level	Outcome	**A8 Definition**	The total volume of water recycled and reused as a percentage of the total water withdrawal.
INDICATOR ASSIGNMENT	WS5.4	**A4 Back to Basics pillar**	Service delivery	**A9 Indicator Formula**	(1) Volume of water recycled and reused (VRR) / (2) Volume of total freshwater withdrawal (TWW) * 100
A5 Unit of measurement	Percentage of water	**A6 Frequency of reporting**	Annual	**A10 Indicator origin**	AMCOW indicator MBI indicator
A11 Notes on calculation	Volume of water recycled and reused (VRR) is the sum of (appropriately treated) reused water volumes from each of the two types listed below (two data elements pertaining to agriculture drainage and irrigation usage are excluded from the AMCOW definition to suit the South African context). AMCOW suggests that countries should report the percentage value for any given year, as well as the percentage change over time using the formulas below: Percentage of water recycled and reused (PRR) = VRR / TWW x 100 Percentage change = (PRRi - PRR2015) / PRR2015 x 100 Where 'i' is the given year. For each parameter, specify whether the values are metered or estimated. If estimated, the estimation method should be specified.			**A12 Additional notes**	The AMCOW code for this performance indicator is I-2.2a. The MBI code for this performance indicator is WDM29. Note that while this target is an explicit part of SDG-6.3, there is no SDG indicator on recycling and reuse. The main challenge for this indicator lies in defining the parameters to be included. For transparency it is suggested that the sectors used are: municipal, industrial and agricultural. Total withdrawals by these sectors are reasonably reported on by African countries. However, it is not possible reliably measure the direct use of agriculture drainage water or direct use of nont treated municipal wastewater for irrigation purposes, as originally provided for in the AMCOW based definition. These data elements have therefore been excluded in the calculation and may be introduced at a later stage. 'Safe' reuse refers to water that is of a quality that is 'fit for purpose'. i.e. is generally treated, but the levels of treatment (i.e. primary, secondary, tertiary) may vary depending on use. All parameters as defined in AquaStat http://www.fao.org/nr/water/aquastat/data/glossary/search.html. For each parameter, countries should specify whether values are measured, modelled or estimated (surface and groundwater), and provide information on the processes used to derive the values, and the year of last assessment. If values or estimates are not available for any of the parameters, they should be left blank. Note that this indicator does not cover water recycling and reuse that is not connected to the public water supply systems, e.g. in some cases of mining, energy, and large/remote industry. In these cases, companies and organisations are encouraged to report on the equivalent indicator under the Global Reporting Initiative (https://g4.globalreporting.org/specific-standarddisclosures/environmental/water/Pages/G4-EN10.aspx) following the GRI G4 Sustainability Reporting Guidelines.

Reporting responsibility	Applies to Municipal Category		Readiness
Metro	**Metro**	**Yes**	**Tier 2**

B1 Data Element	(1) Volume of water recycled and reused (VRR)	**B4 Source**	WSA	**C1 Data Element**	(2) 1.a Direct use of treated municipal wastewater (not including irrigation)	**C4 Source**	WSA
B2 Frequency of collection	Annual	**B5 Units**	10^9 m^3	**C2 Frequency of collection**	Annual	**C5 Units**	Treated municipal wastewater (primary, secondary, tertiary effluents) directly used, i.e. with no or little prior dilution with freshwater during most of the year, for any purpose other than irrigation.
B3 Definition	Total volume of water which has been directly reused (not first discharged to the environment), after ensuring it has been treated to a standard that is fit for purpose. This is considered inclusive of: a.Direct use of treated municipal wastewater (not including irrigation); and b. Direct use of treated municipal wastewater for irrigation purposes.			**C3 Definition**	Treated municipal wastewater (primary, secondary, tertiary effluents) directly used, i.e. with no or little prior dilution with freshwater during most of the year, for any purpose other than irrigation.		
B6 Notes	The MBI code for this data element is A119. Volume of water recycled and reused (VRR) is the sum of (appropriately treated) reused water volumes from each of the two types listed in data elements 2 and 3.			**C6 Notes**	The MBI code for this data element is A120.		

D1 Data Element	(3) Direct use of treated municipal wastewater for irrigation purposes	**D4 Source**	WSA	**E1 Data Element**	(4) Total freshwater withdrawal (TWW)	**E4 Source**	WSA
D2 Frequency of collection	Annual	**D5 Units**	10^9 m^3	**E2 Frequency of collection**	Annual	**E5 Units**	10^9 m^3
D3 Definition	Treated municipal wastewater applied artificially (irrigation) and directly (i.e. with no or little prior dilution with freshwater during most of the year) on land to assist the growth of crops and fruit trees, for recreational areas, and for landscaping and forestry.			**E3 Definition**	Total freshwater withdrawal (TWW) is the volume of freshwater extracted from its source (rivers, lakes, aquifers) for agriculture, industries and municipalities.		
D6 Notes	The MBI code for this data element is A123.			**E6 Notes**	The MBI code for this data element is A124. It is estimated at the country level for the following three main sectors: agriculture, municipalities (including domestic water withdrawal) and industries. Freshwater withdrawal includes primary freshwater (not withdrawn before), secondary freshwater (previously withdrawn and returned to rivers and groundwater) and fossil groundwater. It does not include non-conventional water, i.e. direct use of treated wastewater, direct use of agricultural drainage water and desalinated water. TWW is in general calculated as being the sum of total water withdrawal by sector minus direct use of wastewater, direct use of agricultural drainage water and use of desalinated water.		