Position papers do not have any legal status in its own right. Subject matters dealt with in position papers are identified for specific consideration and may be matters controversial in nature. Accounting treatment becomes relevant due to achieving consistencies in classification throughout the local government sector.

Position papers need to be read together with the Project Summary Document as updated periodically by National Treasury.

Position papers DO NOT replace any National Treasury guidelines, circulars, practice notes or implementation guidelines.

Position papers are prepared by the mSCOA Project Team based on information collected throughout the mSCOA Project Lifecycle. Consultation with interested parties may be necessary in concluding on subject matters.

Terminology applied in the position paper will be specifically defined for updating the Standard Terminology list as published on the National Treasury web as part of the mSCOA project documents.

Frequently asked questions are used as part of the basis for research to cross reference with the specific queries in order to retain the completeness of this source of information.

Position Papers guide National Treasury to reach conclusions after having engaged in consultation as may be defined by the mSCOA Technical Work Group, and supplemented by the views of the mSCOA Project Steering Committee.

Recommendations to the mSCOA Project Steering Committee may include appropriate reference to any National Treasury documentation requiring review, following the conclusions reached on the position paper.

CONTENT

[ACRONYMNS 3](#_Toc466035781)

[BACKGROUND 3](#_Toc466035782)

[The need for having Water Balance Reporting 3](#_Toc466035783)

[Development of the Department of Water and Sanitation Water Balance Guideline 4](#_Toc466035784)

[Purpose of the Department of Water and Sanitation Water Balance Guideline 4](#_Toc466035785)

[What is Water Balance Reporting? 5](#_Toc466035786)

[THE PROBLEM STATEMENT 6](#_Toc466035787)

[LEGISLATIVE AND STANDARD REFERENCES 7](#_Toc466035788)

[Legislation 7](#_Toc466035789)

[Standard of GRAP 8](#_Toc466035790)

[WATER BALANCE REPORTING AND MSCOA 8](#_Toc466035791)

[What is water balance reporting? 8](#_Toc466035792)

[mSCOA Accounts 9](#_Toc466035793)

[mSCOA Item Assets: Current Assets Inventory – Water 9](#_Toc466035794)

[mSCOA Item Expenditure: Inventory Consumed - Water 14](#_Toc466035795)

[mSCOA Item Gains and Losses: Inventory Consumed - Water 15](#_Toc466035796)

[Recording components of the Water Balance Reporting within the mSCOA Accounts 18](#_Toc466035797)

[Transaction 1: Bulk Purchase of Water 18](#_Toc466035798)

[Transaction 2: Water Treatment Works / Natural Sources 18](#_Toc466035799)

[Transaction 3: Authorised Consumption 18](#_Toc466035800)

[Transaction 4: Non-revenue Water (Water Losses) 19](#_Toc466035801)

[Transaction 5: Month-end Closure 19](#_Toc466035802)

[Summary of Account Entries 19](#_Toc466035803)

[Non-financial Information 25](#_Toc466035804)

[ALTERNATIVE TREATMENT 26](#_Toc466035805)

[NATIONAL TREASURY DOCUMENTS TO BE REVISED FOLLOWING THE ADOPTION OF THIS POSITION PAPER 27](#_Toc466035806)

[CONCLUSION 27](#_Toc466035807)

[RECOMMENDATION 28](#_Toc466035808)

[ANNEXURE A: COST OF INVENTORY – EXTRACT FROM THE STANDARDS OF GRAP 11 INVENTORY 29](#_Toc466035809)

[Costs of purchase 29](#_Toc466035810)

[Costs of conversion 29](#_Toc466035811)

[Other costs 30](#_Toc466035812)

[Cost of inventories of a service provider 30](#_Toc466035813)

[ANNEXURE B: COMMENTS AND QUERIES RECEIVED INFORMING THE PROBLEM STATEMENT 31](#_Toc466035814)

[ANNEXURE C: DEPARTMENT OF WATER AND SANITATION WATER BALANCE GUIDE AUGUST 2014 38](#_Toc466035815)

# ACRONYMNS

|  |  |
| --- | --- |
| **Abbreviation** | **Reference** |
| **NDP** | National Development plan |
| **WC/WDM** | Water Conservation and Water Demand Management |
| **DWS** | Department of Water and Sanitation |
| **NRW** | Non-revenue Water |
| **IWA** | International Water Association |
| **NWRS** | National Water Resources Strategy |
| **IDP** | Integrated Development Plan |
| **WSDP** | Water Service Development Plan |

## BACKGROUND

### The need for having Water Balance Reporting

1. The National Development Plan (NDP) makes reference to the need for vigorous Water Conservation and Water Demand Management (WC/WDM) programmes to ensure that the national and regional water loss reduction targets are met in view of the water scarcity challenges facing the country.
2. These challenges are multi-dimensional in nature ranging from limited resource availability to limitations in access, due to inappropriate infrastructure management and maintenance. Furthermore, the NDP makes mention of the need for a dedicated national WC/WDM programme which will assist in setting progressive water loss reduction targets for 2017 and 2022, thus highlighting the critical requirement of sound management information upon which to make prudent decisions regarding strategic options for the future sustainable water supply in the country.
3. The South African Water Services Act (Act 108 of 1997) requires all spheres of Government to ensure water services are provided in an efficient, equitable and sustainable manner which is sufficient for subsistence and sustainable economic activity. This can only be achieved through a proper understanding of the system input volume, authorised consumption, water losses and non-revenue water of all urban and rural potable water distribution systems.
4. The Department of Water and Sanitation (DWS) released the Water Balance Guideline in August 2014 (attached as Annexure C) articulating the background to the need for water balance reporting in the context of local government.
5. The following sections are quoted from this guideline to provide the background to this Position Paper and the consequential impact articulated in mSCOA:
   * Non-revenue Water (NRW) management and its emergent fiscal implications take centre stage in order to ensure water availability for the required socio-economic development, aiding in alleviating poverty, improving the economy and job creation; whilst simultaneously achieving environmental sustainability as set out in the core objectives of the National Water Resources Strategy (NWRS 2).
   * The management of water resources, and in particular potable water, is however a cross cutting function which is as much about technical and operational capacity as it is about healthy fiscal decision making processes and consumer sentiment.
   * NRW management becomes a crucial and telling indicator of the state and health of municipalities which have been given the mandate to manage and take responsibility for the provision of services.
   * Municipalities as autonomous institutions, are required to be self-sustaining and to operate on firm business principles whilst making provision for poor and vulnerable communities.
   * The institutionalisation, measurement and standardisation of NRW management is therefore aimed at helping to achieve the overall objective of self-sufficient municipalities which have the financial, technical and resource capacity to provide good quality water services.

### Development of the Department of Water and Sanitation Water Balance Guideline

1. The International Water Association (IWA) has developed the standard water balance to evaluate the performance of water distribution systems and it is being promoted across the world as best practice. The IWA standard water balance was slightly modified for South Africa to allow for free basic water.
2. Although the IWA has gone to great extents to standardise the water balance calculations and terminology, there still remains considerable confusion and opinions on how to deal with certain aspects of the water balance calculation.

### Purpose of the Department of Water and Sanitation Water Balance Guideline

1. The purpose of the guideline is to provide a clear understanding on the water balance calculations and terminology in order that all municipalities could be benchmarked on the same grounds.
2. The guideline does not intend to deal with all the technicalities of the water balance calculation but rather to standardise the water balance calculation for the whole country and provide a guideline which can be used and understood by politicians, municipal officials and customers.
3. Section 1 provides guidelines on the information required and theory behind the water balance, whereas Section 2 provides practical examples of differing complexity.
4. DWS made considerable effort to establish long term partnerships and effective channels of communication between departments responsible for water management in all its facets at the national-, provincial- and, local government levels.
5. The financial management and viability of water service provision features prominently in these endeavours as a key component of the IWA NRW measurement methodology.

### What is Water Balance Reporting?

1. The water balance gives a clear indication of the water supply and demand of a system.
2. The supply is the volume of potable water supplied to the system while the demand is the volume authorised for consumption which could either be metered or unmetered and billed or unbilled.
3. The difference between the supply and demand provides an indication of the water losses and non-revenue water of a water distribution system.
4. Water service authorities are encouraged to prepare a water balance that best reflects their current water loss and non-revenue water situation.
5. Preparing a water balance that looks good on paper should at all costs be avoided as problems cannot be addressed if they are “hidden” somewhere in the calculations.
6. Certain basic information is required to prepare a water balance. Most of the information required should be provided by the engineering and finance departments of the municipality; and, it is important that these departments work together to develop a single water balance which accurately reflects the volumes of water distributed to the consumers and not a department specific water balance which gives different answers.
7. Information used in the water balance should be the same as presented in the Integrated Development Plan (IDP); Water Service Development Plan (WSDP); annual report; and, other official documents.
8. The water balance calculation should be based on traceable and credible information which could be verified during an audit. Credible and verifiable information includes monthly bulk or consumer meter readings, as well as official reports from the municipal billing metered- and unmetered consumption.
9. Please refer to the DWS Water Balance Guideline provides detail discussions on water balance basic information required, water distribution terminology and free basic components of water balance reporting.
10. The financial component of water balance reporting is dealt with in the mSCOA Tables within the Item Segment Assets, Gains and Losses and Expenditure. Non-financial information will be incorporated in the future guidance dealing with this subject matter.

## THE PROBLEM STATEMENT

1. Municipalities are not treating the components making-up the water balance consistently throughout the local government sector. For example, input volume (purchases, treatment and natural sources), sale, losses and other movements.
2. Some municipalities consider water purchases as a direct expense referred to in mSCOA as “Bulk Purchases”, whilst others apply some form of water balance reporting through inventory accounting. Practitioners justify this treatment of input volume based on the “materiality” of the value of water at a given time in the distribution system, ignoring completely the components making up the water balance; and, not even mentioning the non-financial information required.
3. Potentially the record keeping on “water balances” may not be consistent with the requirements by the Water Services Act, including regulations issued in terms of the Act.
4. Accordingly, various opinions exist in terms of the classification of water balance and related movements thereof in the context of mSCOA.
5. In addition, the Standards of GRAP 12 Inventory (as explained below) in some instances are not complied with by certain municipalities.
6. The common belief amongst municipalities is that the requirements contained in the DWS Water Balance Guideline are not currently feasible, neither practical for implementation.
7. The initiation of the mSCOA Project in developing a Standard Chart of Accounts for the classification of municipal transactions set the path for incorporating the Water Balance Reporting Requirements, firstly from a quantitative perspective, to action, and secondly for the qualitative measurements as the development of mSCOA further evolves.
8. Transparent, auditable and well planned budgeting is imminent in compiling an mSCOA compliant budget. The implementation of proper budgeting methodologies which have a clear link to the IDP’s and other standard reporting requirements will result in consistency and coherence in the figures presented in all municipal financial documentation.
9. The further advantage in supporting the initiative inherent to the mSCOA process is the seamless link between expenditure, the source of funding, the expenditure and outcome or deliverables achieved, as evidenced from the respective capital and operational projects.
10. The “central point of access” design principles inherent to the development of mSCOA clearly articulates the vision of National Treasury to be the custodian of all municipal financial information (futuristic view also non-financial information) and this information will form the foundation for deriving Water Balance Reporting information from municipalities.
11. Initiation of the mSCOA Project provides the opportunity for National Treasury to work closer with all stakeholders interested in financial- and to a lesser extent non-financial information, such as DWS.
12. The purpose of this position paper is to give guidance on how the respective components of Water Balance Reporting as explained in the DWS Water Balance Guideline need to be classified within the mSCOA Framework

## LEGISLATIVE AND STANDARD REFERENCES

### Legislation

1. Section 63 of the Municipal Finance Management Act, No 56 of 2003 (MFMA), states that the accounting officer is responsible for the management of assets of the municipality. This includes amongst others:
   * the municipality has and maintains a management, accounting and information system that accounts for the assets of the municipality;
   * the municipality’s assets are valued in accordance with Standards of GRAP; and
   * the municipality has and maintains a system of internal control of assets and liabilities, including an asset and liability register.
2. Non-revenue water and water loss calculations are required under the Regulation rating: Compulsory National Standards and Measures to Conserve Water (R509 of 2001) under the Water Services Act (Act No. 108 of 1997). The aforementioned regulations require the following:
   * Clause 10 (of the Act No. 108 of 1997) states that a water services authority must include a water services audit in its annual report in the implementation of its water services development plan, as required in terms of section 18(1) of the Act;
   * Clause 11 (of the Act No. 108 of 1997 states that a water services institution must prepare a water and effluent balance analysis and determine their water losses by comparing the measured quantity of water provided to each supply zone with the total measured quantity of water provided to all user connections within that supply zone; and
   * Clause 13 (of the Act No. 108 of 1997states that a water services institution must, within two years after promulgation of these Regulations, fit a suitable water volume measuring device or volume controlling device provided with water supply services, to all user connections.
3. The Regulation relating to Compulsory National Standards and Measures to Conserve Water (R509 of 2001) issued in terms of section 9(1) and 73(1)(j) of the Water Services Act are included in the Department’s “No Drop” incentive-based regulatory system to improve service delivery and water security and to reduce water losses and non-revenue water. Paragraph 10 and 11 of the Regulations relating to compulsory standards and measures to conserve water states the following:
   * “A water service authority must include a water services audit in its annual report on the implementation of its water development plan required in terms of Section 18(1) of the Water Services Act and must include amongst others the following information:
   1. the quantity of water services provided including the quantity of water used by each sector; the quantity of water provided to the water services institution;
   2. the levels of services rendered;
   3. cost recovery including the tariff structures; and
   4. water conservation and demand management, including at least:
      1. Results of the water balance; and
      2. Total quantity of water unaccounted for.
4. “In terms of paragraph 11 of the Regulations regarding water and effluent balance analysis and determination of water losses, a water institution must every month:
   * Measure the quantity of water provided to each supply zone; and
   * Determine the quantity of unaccounted for water.”

### Standard of GRAP

1. Paragraph 7 (c) of the Standard of GRAP 12 Inventories, defines inventories as the following: “Inventories are assets held for sale or distribution in the ordinary course of operations”.
2. Paragraph 14 of the Standard of GRAP 12 Inventories states the following in regard to recognition of inventory: “Inventories shall be recognised as an asset if, and only if, it is probable that future economic benefits or service potential associated with the item will flow to the entity; and the cost of the inventories can be measured reliably.”

## WATER BALANCE REPORTING AND MSCOA

### What is water balance reporting?

1. The water balance gives a clear indication of the water supply and demand of a system. The supply is the volume of potable water supplied to the system while the demand is the authorised volume consumption which could either be metered or unmetered and billed or unbilled. The difference between the supply and demand provides an indication of the water losses and non-revenue water of a water distribution system.

## mSCOA Accounts

### mSCOA Item Assets: Current Assets Inventory – Water

1. The table hereunder is an extract from the mSCOA Tables specifically providing for the accounts required to sufficiently deal with the requirements of the Department of Water and Sanitation Municipal Water Balance Guideline. The accounts highlighted in “bold” depicts the posting level accounts.

| **MSCOA ACCOUNT** | **GUID** | **DEFINITION** |
| --- | --- | --- |
| **Opening Balance** |  |  |
| **System Input Volume** |  | The bulk water supply is the total volume of potable water supplied to the system from rivers, dams, springs, boreholes and bulk water service providers. All these supply points should be metered and monitored on a continuous basis. [DWS Municipal Water Balance Guideline – page 9]  Water treatment losses is not provided for in this classification (typically between 5 and 10% of system input volume) and must not be included in the water balance.  The system input volume is the volume of potable water supplied to the water supply system consisting of potable supply from water treatment plant, supply from bulk or other water services providers and supply from boreholes, springs, fountains, if not supplied through water treatment plans. The system input volume should be obtained from the engineering department. |
| **Water Treatment Works** |  | Potable supply from Water Treatment Works. Value to be determined by calculating primary and secondary cost components. |
| **Bulk Purchases** |  | Supply from bulk or other water service providers recognised by the amount paid. |
| **Natural Sources** |  | Supply from boreholes, springs, fountain, if not supplied through the water treatment plant. Value to be determined by calculating primary and secondary cost components. |
| **Authorised Consumption** |  | Authorised consumption is the volume of metered and unmetered water used by the registered customers, the water supplier and others who are implicitly authorised to do so by the water services authority, for residential, commercial and industrial purposes. Authorised consumption can only be metered or unmetered and billed or unbilled. All consumption within the municipal system must fall within one of these four categories, otherwise it should be considered part of water losses. |
| **Billed Authorised Consumption** |  | Monthly bill is distributed to the consumer through a metered or unmetered connection. |
| **Billed Metered Consumption** |  | Water connections fitted with a meter and linked to a customer account which is billed. Account can be based on actual or deemed consumption. |
| **Free Basic Water** |  | Free basic water is considered billed metered or unmetered consumption, billed at a zero rate, and forms part of the billed consumption and revenue water. |
| **Subsidised Water** |  | Subsidised Water is considered billed metered or unmetered consumption, billed at a subsidised rate and forms part of the billed consumption and revenue water. |
| **Revenue Water** |  | Billed consumption is considered to be the consumption for which an invoice is issued by the municipality to the consumer. Revenue water refers to the volume of water for which revenue should be received, and can be “billed metered” or “billed unmetered” |
| **Billed Unmetered Consumption** |  | Fixed volume of water for which a bill is issued by the utility. This can refer to deemed consumption and/or free basic water. |
| **Free Basic Water** |  | Free basic water is considered billed metered or unmetered consumption, billed at a zero rate, and forms part of the billed consumption and revenue water. This account provides for the units allocated based on a cost allocation method. |
| **Subsidised Water** |  | Subsidised Water is considered billed metered/ unmetered consumption, billed at a subsidised rate and forms part of the billed consumption and revenue water. This account provides for the units allocated based on a cost allocation method. |
| **Revenue Water** |  | Billed consumption is considered to be the consumption for which an invoice is issued by the municipality to the consumer. Revenue water refers to the volume of water for which revenue should be received, and can be “billed metered” or “billed unmetered” |
| **Unbilled Authorised Consumption** |  | Consumer does not receive a monthly bill and it may be metered or unmetered consumption. |
| **Unbilled Metered Consumption** |  | Volume of water used for municipal parks, road islands, fire-fighting, municipal garden and public facilities. |
| **Unbilled Unmetered Consumption** |  | Volume of water used for fire-fighting, flushing of mains and maintenance of water infrastructure. |
| **Water Losses**[[1]](#footnote-1) |  | Water losses are calculated as the difference between the system input volume and the authorised consumption. Water losses are broken down into commercial or apparent and physical or real losses. |
| **Apparent Losses** |  | Apparent / commercial losses are not visible, except for unauthorised use, and are usually as a result of poor- or lack of metering. If these losses are reduced, generally more revenue will be generated by, and for the water service institution. |
| **Unauthorised Consumption** |  | Unauthorised connection/consumption through theft. An unauthorised connection is defined as a water connection to a customer which was not installed by the water utility or, a water connection which has deliberately been tampered with to reduce or eradicate the metered consumption. |
| **Customer Meter Inaccuracies** |  | Customer metering and billing inaccuracies. Metering inaccuracies differ significantly from municipality to municipality and depend on the water quality, class of meter, type of meter, meter sizing, installation requirements and air surges. |
| **Real Losses** |  | Physical or real losses are the physical water losses from the pressurised system, up to the point of measurement of customer use. Real losses include leaking mains, reticulation pipes, connection pipes, overflowing reservoirs and bursts. |
| **Leakage on Transmission and Distribution Mains** |  | Physical or real losses at distribution mains. |
| **Leakage and Overflows at Storage Tanks** |  | Physical or real losses at storage tanks. |
| **Leakage on Service Connections up to point of Customer Meter** |  | Physical or real losses at service connections up to the point of Customer Meter. |
| **Data transfer and management errors** |  | Data transfer and management errors are the difference between the actual metered consumption and the metered consumption billed. Data transfer and management errors typically occur as a result of data entry errors, estimated readings, meters not captured on the billing system, meter factor errors and financial billing correction without volume corrections.  It is accepted that many municipalities do not read their meters on a monthly basis and work on estimated readings. In this case the data transfer error will be high on estimated months but is expected to be reconciled once the meters have been read. |
| **Unavoidable Annual Real Losses** |  | Unavoidable annual real losses are the accepted minimum level of physical losses from the water distribution system. The leakage from a water distribution system can never be zero. |
| **Non-revenue Water** |  | Non-revenue water is the volume of water for which the water utility received no income. |
| **Closing Balance** |  | Automatic roll-over at the end of the reporting period to opening balance for the new reporting period. |

### mSCOA Item Expenditure: Inventory Consumed - Water

| **MSCOA ACCOUNT** | **GUIDE** | **/DEFINITION** |
| --- | --- | --- |
| **Water** | 714e8920-85c7-470a-9d00-2145aa38c98c | Refer to Water Balance Reporting in the Inventory account. This account provides for authorised consumption as per the movements in the Water Inventory account within Current Assets. |
| **Transfers and Subsidies** | 64233fb8-07fe-45b2-bdb8-90338ae441dd | This category provides for of all unrequited payments made by the municipality. A payment is unrequited provided that the municipality does not receive anything of similar value directly in return for the transfer to another party. Both current and capital transfers are included in this item. Municipalities distinguish between transfers to provinces, district municipalities, departmental agencies and accounts, universities and Technicons, public corporations, private enterprises, foreign government and international institutions, non-profit organisations and households. This group of accounts provide for "operational and capital transfers and subsidies" made "in-kind or in monetary value". |
| **Operational** | 22704043-9113-4ce7-b55a-0970909c5f7f | This group of accounts provide for operational payments both "in-kind and monetary" value. |
| **In-kind** | e49b1e81-927b-4f11-ab10-a3bc030fd5f0 | This group of accounts provide for operational payments "in-kind. |
| **Households** | 8ff1b15c-f957-4437-936c-1d8c0c4614ea | Operational transfers in-kind made to households. |
| **Cost of Free Basic Services** |  |  |
| **Revenue Foregone (Subsidised Services)** |  |  |

### mSCOA Item Gains and Losses: Inventory Consumed - Water

| **MSCOA ACCOUNT** | **GUIDE** | **DEFINITION** |
| --- | --- | --- |
| **Water Losses**[[2]](#footnote-2) | 01929127-a012-438e-a0da-9d7eb6663261 | Water losses are calculated as the difference between the system input volume and the authorised consumption. Water losses are broken down into commercial-; or, apparent and physical-; or, real losses. |
| **Apparent Losses** | d9bbb46b-aa90-4f7b-aeb3-7359fc8cc87a | Apparent / commercial losses are not visible, except for unauthorised use, and are usually as a result of poor- or lack of metering. If these losses are reduced, generally more revenue will be generated by and for the water service institution. |
| **Unauthorised Consumption** |  | Unauthorised connection/consumption through theft. An unauthorised connection is defined as a water connection to a customer which was not installed by the water utility or a water connection which has deliberately been tampered with to reduce or eradicate the metered consumption. |
| **Customer Meter Inaccuracies** | d8f653d1-9af4-45e0-937f-6fdfe4cf1575 | Customer metering and billing inaccuracies. Metering inaccuracies differ significantly from municipality to municipality and depend on the water quality, class of meter, type of meter, meter sizing, installation requirements and air surges. |
| **Real Losses** | 4977c2ca-363a-4496-9ccc-e388c9bfd6dc | Physical or real losses are the physical water losses from the pressurised system, up to the point of measurement of customer use. Real losses include leaking mains, reticulation pipes, connection pipes, overflowing reservoirs and bursts. |
| **Leakage on Transmission and Distribution Mains** | 182abd95-a1a7-4709-a146-0fd966664c73 | Physical or real losses at distribution mains. |
| **Leakage and Overflows at Storage Tanks** | 47e08147-2f6d-417f-9f9c-2d89250434f9 | Physical or real losses at storage tanks. |
| **Leakage on Service Connections up to point of Customer Meter** | d4071d7a-d698-465d-85a1-d20f76d4bde2 | Physical or real losses at service connections up to the point of Customer Meter. |
| **Data transfer and management errors** |  | Data transfer and management errors are the difference between the actual metered consumption and the metered consumption billed. Data transfer and management errors typically occur as a result of data entry errors, estimated readings, meters not captured on the billing system, meter factor errors and financial billing corrections without volume corrections.  It is accepted that many municipalities do not read their meters on a monthly basis and work on estimated readings. In this case the data transfer error will be high on estimated months but is expected to be reconciled once the meters have been read. |
| **Unavoidable Annual Real Losses** | 123b1bd3-3a9d-4f27-8666-e7877815e385 | Unavoidable annual real losses are the accepted minimum level of physical losses from the water distribution system. The leakage from a water distribution system can never be zero. |
| **Non-revenue Water** |  | Non-revenue water is the volume of water for which the water utility received no income. |

## Recording components of the Water Balance Reporting within the mSCOA Accounts

1. Certain basic information is required to prepare a water balance. Most of the information required should be provided by the engineering and finance departments of the municipality and it is imperative that these departments work together to develop a single water balance which accurately reflects the volumes of water distributed to the consumers and not a department specific water balance which gives different answers. Information used in the water balance should be the same as presented in the Integrated Development Plan (IDP), Water Services Development Plan (WSDP), annual report, and other official documents.
2. The water balance calculation should be based on traceable and credible information which could be verified during an audit. Credible and verifiable information includes monthly bulk or consumer meter readings and official reports from the municipal billing system to justify billed metered and unmetered consumption.
3. The DWS Municipal Water Balance Guideline provides detailed calculations and methodologies for assessing the various components making up the water balance.
4. The illustration provided hereunder, recording these components through transactions in the accounting records using the mSCOA accounts, is focussed on the “double entries” and not dealing with the intricacies of the respective calculations.

### Transaction 1: Bulk Purchase of Water

1. Assumption to apply to this example: No opening or closing stock.
2. Water is purchased from a supplier at R2 per kl (Cost Price) and the amount of water purchased was 100 000 kl. The account transactions are accounted for directly to inventory for water by debiting the “Bulk Purchase Account within Water Inventory and crediting the “Supplier” with the actual cost as per invoice (excluding VAT). The debit to the “Bulk Purchases” may also include water purification costs (**the total cost of inventory may include costs in addition to the actual bulk purchase**). Refer to Annexure A for an extract from the Standard of GRAP 11 Inventory on the Cost of Inventory.

### Transaction 2: Water Treatment Works / Natural Sources

1. Water available from water treatment works and natural sources of 50 000 kl at a unit cost of R0,50 is available through the distribution network to consumers at a total cost of R25 000. These costs consist mainly of chemical treatment cost (R12 000) and labour cost (R13 000) from the water treatment plants.

### Transaction 3: Authorised Consumption

1. The amount of water taken from stock to be sold by way of the billing must now be taken from stock and be expensed at the cost price. The next step is to debit the expense account Inventory Consumed Water at the cost of R1,50 as per table below:

|  |  |  |
| --- | --- | --- |
| **Category of Authorised Consumption** | | |
|  | kl | R |
| **Billed Metered Consumption: Free Basic Water** | 20,000 | 30,000 |
| **Billed Metered Consumption: Subsidised Water** | 10,000 | 15,000 |
| **Billed Metered Consumption: Revenue Water** | 30,000 | 45,000 |
| **Billed Unmetered Consumption: Free Basic Water** | 20,000 | 30,000 |
| **Billed Unmetered Consumption: Subsidised Water** | 10,000 | 15,000 |
| **Billed Unmetered Consumption: Revenue Water** | 10,000 | 15,000 |
| **Unbilled Authorised Consumption – Unbilled Metered Consumption** | 10,000 | 15,000 |
| **Unbilled Authorised Consumption – Unbilled Unmetered Consumption** | 10,000 | 15,000 |
|  | 120,000 | 180,000 |

### Transaction 4: Non-revenue Water (Water Losses)

1. Non-revenue Water (Water Losses) need to be written-off. These transactions are debited against the Water Loss accounts in the Item Segment: Gains and Losses, and credited against the respective Non-revenue Water accounts in the Item Segment: Assets / Current Assets / Inventory / Water / Various Non-revenue Water accounts as illustrated hereunder.

|  |  |  |
| --- | --- | --- |
| **Water Losses** | | |
|  | kl | Value |
| **Apparent Losses – Unauthorised Consumption** | 3,750 | 5,625 |
| **Apparent Losses – Customer Meter Inaccuracies** | 3,750 | 5,625 |
| **Real Losses – Leakage on Transmissions and Distribution Mains** | 3,750 | 5,625 |
| **Real Losses – Leakage and Overflow at Storage Tanks** | 3,750 | 5,625 |
| **Real Losses – Leakage on Service Connections up to point of Customer Meter** | 3,750 | 5,625 |
| **Data Transfer and Management Errors** | 3,750 | 5,625 |
| **Unavoidable Annual Losses** | 3,750 | 5,625 |
| **Non-revenue Water** | 3,750 | 5,625 |
|  | 30,000 | 45,000 |

### Transaction 5: Month-end Closure

1. Inventory Water accounts to be closed at the end of the month to Closing Balance. Closing Balance automatically rolled-forward to the opening balance for the next period.

### Summary of Account Entries

| ***Description*** | ***Ref*** | ***Amount*** |  | ***Description*** | ***Ref*** | ***Amount*** |
| --- | --- | --- | --- | --- | --- | --- |
| **Water Inventory (Statement of Financial Position) – Bulk Purchases** | | | | | | |
| Accounts Payable – Bulk Purchases | 1. | 200,000 |  | Current Asset: Inventory Water – Closing Balance | 5.1 | 200,000 |
| **Water Treatment Works or/and Natural Sources** | | | | | | |
| Compensation of Employees – Municipal Staff | 2. | 13,000 |  | Current Asset: Inventory Water – Closing Balance | 5.2 | 25,000 |
| Inventory: Consumables | 2. | 12,000 |  |  |  |  |
|  |  | 25,000 |  |  |  | 25,000 |
| **Accounts Payable: Bulk Purchases** | | | | | | |
|  |  |  |  | Water Inventory – Bulk Purchases | 1 | 200, 000 |
|  |  |  |  |  |  |  |
| **Expenditure: Compensation of Employees – Municipal Staff** | | | | | | |
|  |  |  |  | *Ex Cost Capitalised* - Water Treatment Works and/or Natural Sources | 2 | 13,000 |
| **Current Asset: Inventory (Consumables)** | | | | | | |
|  |  |  |  | Water Treatment Works and/or Natural Sources | 2 | 12,000 |
| **Current Asset: Billed Metered Consumption: Free Basic Services** | | | | | | |
| Current Asset: Inventory Water – Closing Balance | 5.3 | 20,000 |  | Transfers and Subsidies: Households – Free Basic Services | 3 | 20,000 |
| **Current Asset: Billed Metered Consumption: Subsidised Water** | | | | | | |
| Current Asset: Inventory Water – Closing Balance | 5.4 | 10,000 |  | Transfers and Subsidies: Households – Revenue Foregone | 3 | 10,000 |
| **Current Asset: Billed Metered Consumption: Revenue Water** | | | | | | |
| Current Asset: Inventory Water – Closing Balance | 5.5 | 30,000 |  | Accounts Receivables – Various – Billing and Interest | 3 | 30,000 |
| **Current Asset: Billed Unmetered Consumption: Free Basic Services** | | | | | | |
| Current Asset: Inventory Water – Closing Balance | 5.6 | 20,000 |  | Transfers and Subsidies: Households – Free Basic Services | 3 | 20,000 |
| **Current Asset: Billed Unmetered Consumption: Subsidised Water** | | | | | | |
| Current Asset: Inventory Water – Closing Balance | 5.7 | 10,000 |  | Transfers and Subsidies: Households – Revenue Foregone | 3 | 10,000 |
| **Current Asset: Billed Unmetered Consumption: Revenue Water** | | | | | | |
| Current Asset: Inventory Water – Closing Balance | 5.8 | 10,000 |  | Accounts Receivables – Various – Billing and Interest | 3 | 10,000 |
| **Current Asset: Water Inventory - Unbilled Authorised Consumption: Unbilled Metered Consumption** | | | | | | |
| Current Asset: Inventory Water – Closing Balance | 5.9 | 10,000 |  | Transfers and Subsidies: Households – Free Basic Services | 3 | 10,000 |
| **Current Asset: Water Inventory - Unbilled Authorised Consumption: Unbilled Unmetered Consumption** | | | | | | |
| Current Asset: Inventory Water – Closing Balance | 5.10 | 10,000 |  | Transfers and Subsidies: Households – Free Basic Services | 3 | 10,000 |
| **Current Asset: Water Inventory - Apparent Losses (Water Inventory): Unauthorised Consumption** | | | | | | |
| Current Asset: Inventory Water – Closing Balance | 5.11 | 3,750 |  | Gains and Losses Water: Apparent Losses – Unauthorised Consumption | 4 | 3,750 |
| **Current Asset: Water Inventory - Apparent Losses: Customer Meter Inaccuracies** | | | | | | |
| Current Asset: Inventory Water – Closing Balance | 5.12 | 3,750 |  | Gains and Losses Water: Apparent Losses – Customer Meter Inaccuracies | 4 | 3,750 |
| **Current Asset: Water Inventory - Real Losses: Leakage on Transmissions and Distribution Mains** | | | | | | |
| Current Asset: Inventory Water – Closing Balance | 5.13 | 3,750 |  | Gains and Losses Water: Real Losses – Leakage on Transmissions and Distribution Main | 4 | 3,750 |
| **Current Asset: Water Inventory - Real Losses: Leakage and Overflow at Storage Tanks** | | | | | | |
| Current Asset: Inventory Water – Closing Balance | 5.14 | 3,750 |  | Gains and Losses Water: Real Losses – Leakage and Overflow at Storage Tanks | 4 | 3,750 |
| **Current Asset: Water Inventory - Real Losses: Leakage and Service Connections up to Point of Customer Meter** | | | | | | |
| Current Asset: Inventory Water – Closing Balance | 5.15 | 3,750 |  | Gains and Losses Water: Real Losses – Leakage and Service Connections up to Point of Customer Meter | 4 | 3,750 |
| **Current Asset: Water Inventory - Data Transfer and Management Errors** | | | | | | |
| Current Asset: Inventory Water – Closing Balance | 5.16 | 3,750 |  | Gains and Losses Water: Data Transfer and Management Errors | 4 | 3,750 |
| **Current Asset: Water Inventory - Non-revenue Water** | | | | | | |
| Current Asset: Inventory Water – Closing Balance | 5.17 | 3,750 |  | Gains and Losses Water: Non-revenue Water | 4 | 3,750 |
| **Gains and Losses: Apparent Losses – Unauthorised Consumption** | | | | | | |
| Current Assets: Apparent Losses – Unauthorised Consumption | 4 | 3,750 |  |  |  |  |
| **Gains and Losses: Apparent Losses – Customer Meter Inaccuracies** | | | | | | |
| Current Assets: Apparent Losses – Customer Meter Inaccuracies | 4 | 3,750 |  |  |  |  |
| **Gains and Losses: Real Losses – Leakage on Transmissions and Distribution Mains** | | | | | | |
| Current Assets: Real Losses – Leakage on Transmissions and Distribution Mains | 4 | 3,750 |  |  |  |  |
| **Gains and Losses: Real Losses – Leakage and Overflow at Storage Tanks** | | | | | | |
| Current Assets: Real Losses – Leakage and Overflow at Storage Tanks | 4 | 3,750 |  |  |  |  |
| **Gains and Losses: Real Losses – Leakage and Service Connections up to Point of Customer Meter** | | | | | | |
| Current Assets: Real Losses – Leakage and Service Connections up to Point of Customer Meter | 4 | 3,750 |  |  |  |  |
| **Gains and Losses: Data Transfer and Management Errors** | | | | | | |
| Current Assets: Data Transfer and Management Errors | 4 | 3,750 |  |  |  |  |
| **Gains and Losses: Non-revenue Water** | | | | | | |
| Current Assets: Non-revenue Water | 4 | 3,750 |  |  |  |  |
| **Current Asset: Inventory Water - Closing Balance** | | | | | | |
| Water Inventory (Statement of Financial Position) – Bulk Purchase | 5.1 | 200,000 |  | Current Asset: Billed Metered Consumption: Free Basic Services | 5.3 | 20,000 |
| Water Treatment Works or/and Natural Sources | 5.2 | 25,000 |  | Current Asset: Billed Metered Consumption: Free Basic Services | 5.4 | 10,000 |
|  |  |  |  | Current Asset: Billed Metered Consumption: Revenue Water | 5.5 | 30,000 |
|  |  |  |  | Current Asset: Billed Unmetered Consumption: Free Basic Services | 5.6 | 20,000 |
|  |  |  |  | Current Asset: Billed Unmetered Consumption: Subsidised Water | 5.7 | 10,000 |
|  |  |  |  | Current Asset: Billed Unmetered Consumption: Revenue Water | 5.8 | 10,000 |
|  |  |  |  | Current Asset: Water Inventory – Unbilled Authorised Consumption: Unbilled Metered | 5.9 | 10,000 |
|  |  |  |  | Current Asset: Water Inventory – Unbilled Authorised Consumption: Unbilled Unmetered Consumption | 5.10 | 10,000 |
|  |  |  |  | Current Asset: Water Inventory – Apparent Losses (Water Inventory): Unauthorised Consumption | 5.11 | 3,750 |
|  |  |  |  | Current Asset: Water Inventory – Apparent Losses: Customer Meter Inaccuracies | 5.12 | 3,750 |
|  |  |  |  | Current Asset: Water Inventory – Real Losses: leakage on Transmissions and Distribution Mains | 5.13 | 3,750 |
|  |  |  |  | Current Asset: Water Inventory – Real Losses: Leakage and Overflow at Storage Tank | 5.14 | 3,750 |
|  |  |  |  | Current Asset: Water Inventory - Real Losses: Leakage and Service Connections up to Point of Customer Meter | 5.15 | 3,750 |
|  |  |  |  | Current Asset: Water Inventory – Data Transfer and Management Errors | 5.16 | 3,750 |
|  |  |  |  | Current Asset: Water Inventory – Non-revenue Water | 5.17 | 3,750 |
|  |  | 225,000 |  |  |  | 225,000 |

### Non-financial Information

1. The recording of the components as illustrated above are informed by the non-financial information as summarised below. Details on submitting the supporting non-financial information are provided in a Position Paper on this subject matter.
2. The unit information needs to be supplied by the city engineers and may be based on calculations and estimates as explained in the DWS Municipal Water Balance Guideline. This information is critical in recording the transactions essential in reflecting Water Balance reporting components through the mSCOA Accounts.

|  | **Units** | **Value** |
| --- | --- | --- |
| **Input Volume** | | |
| **Bulk Purchases** | 100,000 | 200,000 |
| **Water Treatment Works / Natural Resources** | 50,000 | 25,000 |
|  | **150,000** | **225,000** |
| **Average cost per kl** | 1,50 |  |
| **Category of Authorised Consumption** | | |
| **Billed Metered Consumption: Free Basic Water** | 20,000 | 30,000 |
| **Billed Metered Consumption: Subsidised Water** | 10,000 | 15,000 |
| **Billed Metered Consumption: Revenue Water** | 30,000 | 45,000 |
| **Billed Unmetered Consumption: Free Basic Water** | 20,000 | 30,000 |
| **Billed Unmetered Consumption: Subsidised Water** | 10,000 | 15,000 |
| **Billed Unmetered Consumption: Revenue Water** | 10,000 | 15,000 |
| **Unbilled Authorised Consumption – Unbilled Metered Consumption** | 10,000 | 15,000 |
| **Unbilled Authorised Consumption – Unbilled Unmetered Consumption** | 10,000 | 15,000 |
|  | 120,000 | 180,000 |
| **Water Losses** | | |
| **Apparent Losses – Unauthorised Consumption** | 3,750 | 5,625 |
| **Apparent Losses – Customer Meter Inaccuracies** | 3,750 | 5,625 |
| **Real Losses – Leakage on Transmissions and Distribution Mains** | 3,750 | 5,625 |
| **Real Losses – Leakage and Overflow at Storage Tanks** | 3,750 | 5,625 |
| **Real Losses – Leakage on Service Connections up to point of Customer Meter** | 3,750 | 5,625 |
| **Data Transfer and Management Errors** | 3,750 | 5,625 |
| **Unavoidable Annual Losses** | 3,750 | 5,625 |
| **Non-revenue Water** | 3,750 | 5,625 |
|  | 30,000 | 45,000 |
|  |  |  |

## ALTERNATIVE TREATMENT

1. Municipalities raised concerns on skills, capacity and technology constraints in following the DWS Water Balance Reporting Guideline in recording water balance components as suggested in the business position.
2. National Treasury does not encourage municipalities to directly expense bulk purchases that would result in non-compliance to the DWS Water Balance Reporting Guideline. This would not only have non-compliance consequences to not being legislatively compliant, but, would also be non-compliant to the Standard of GRAP 11 Inventory.
3. The account to be used as per mSCOA Item: Expenditure is:

| **MSCOA ACCOUNT** | **GUID** | **DEFINITION** |
| --- | --- | --- |
| **Bulk Purchases - Water** | 9d75b4f7-c576-4ca7-bce2-b51c616184a5 | The cost of raw water purchases from the Department of Water Affairs/Water Boards and any other sources. |

## NATIONAL TREASURY DOCUMENTS TO BE REVISED FOLLOWING THE ADOPTION OF THIS POSITION PAPER

1. MFMA Circular 70: Municipal Budget Circular for the 2014/15 MTREF included as Annexure B as discussion on the accounting treatment for non-revenue water and electricity. The required treatment explained in paragraphs 46 to 53 of MFMA Circular 70.

## CONCLUSION

1. The DWS released the Water Balance Guideline in August 2014 (attached as Annexure C) articulating the background to the need for water balance reporting in the context of local government.
2. This Position Paper serves to explain the recording of the transactions inherent to the requirements of the departmental guide by using the mSCOA accounts.
3. This Position Paper provides for an alternative treatment of water purchases in the absence of the municipality not subscribing to the DWS Water Balance Reporting requirements, in directly expensing water purchases. However, this practice is not encouraged by National Treasury.
4. The water balance calculation should be based on traceable and credible information which could be verified during an audit. Credible and verifiable information includes monthly bulk or consumer meter readings, and, official reports from the municipal billing metered and unmetered consumption.
5. The water balance gives a clear indication of the water supply and demand of a system. The supply is the volume of potable water supplied to the system while the demand is the volume authorised consumption, which could either be metered or unmetered and billed or unbilled. The difference between the supply and demand provides an indication of the water losses and non-revenue water of a water distribution system.
6. Certain basic information is required to prepare a water balance. Most of the information required should be provided by the engineering and finance departments of the municipality and it is important that these departments work together to develop a single water balance which accurately reflects the volumes of water distributed to the consumers and not a department specific water balance which gives different answers. Information used in the water balance should be the same as presented in the Integrated Development Plan (IDP), Water Services Development Plan (WSDP), annual report, and other official documents.
7. The position paper further includes an indication of non-financial information imminent in the transactions required to record the components making-up the water balance.

## RECOMMENDATION

1. The mSCOA Project Steering Committee to note:

* Version 1 of this Position Paper on Water Balance Reporting was discussed and presented to the ICF at the 9 September 2015 meeting.
* Content discussed and agreement reached by the OAG with the ASB on 15 February 2016.
* Comment period offered to the ASB Forum Members and invitation extended to all municipalities / provincial treasuries from beginning of March to 8 April 2016. Comments received up to 12 July 2016 and considered in the finalisation of the Position Paper.
* Position Paper to be recommended for publishing to the National Treasury Web.

## ANNEXURE A: COST OF INVENTORY – EXTRACT FROM THE STANDARDS OF GRAP 11 INVENTORY

1. The Standard of GRAP 11 Inventory provide the following guidance on the cost of inventories:
   * .19 The cost of inventories shall comprise all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

### Costs of purchase

* + .20 The costs of purchase of inventories comprise, the purchase price; import duties and other taxes (other than those subsequently recoverable by the entity from the taxing authorities); transport; handling and other costs; directly attributable to the acquisition of finished goods, materials and supplies. Trade discounts, rebates and other similar items are deducted in determining the costs of purchase.

### Costs of conversion

* + .21 The costs of converting work-in-progress inventories into finished goods inventories are incurred primarily in a manufacturing environment. The costs of conversion of inventories include costs directly related to the units of production, such as direct labour. They also include a systematic allocation of fixed and variable production overheads that are incurred in converting materials into finished goods. Fixed production overheads are those indirect costs of production that remain relatively constant regardless of the volume of production, such as depreciation and maintenance of factory buildings and equipment, and the cost of factory management and administration. Variable production overheads are those indirect costs of production that vary directly, or nearly directly, with the volume of production, such as indirect materials and indirect labour.
  + .22 The allocation of fixed production overheads to the costs of conversion is based on the normal capacity of the production facilities. Normal capacity is the production expected to be achieved on average over a number of periods or seasons under normal circumstances, taking into account the loss of capacity resulting from planned maintenance. The actual level of production may be used if it approximates normal capacity. The amount of fixed overhead allocated to each unit of production is not increased as a consequence of low production or idle plant. Unallocated overheads are recognised as an expense in the period in which they are incurred. In periods of abnormally high production, the amount of fixed overhead allocated to each unit of production is decreased so that inventories are not measured above cost. Variable production overheads are allocated to each unit of production on the basis of the actual use of the production facilities.
  + .23 For example, the allocation of costs, both fixed and variable, incurred in the development of undeveloped land held for sale into residential or commercial landholdings, could include costs relating to landscaping, drainage, pipe laying for utility connection etc.
  + .24 A production process may result in more than one product being produced simultaneously. This is the case, for example, when joint products are produced or when there is a main product and a by-product. When the costs of conversion of each product are not separately identifiable, they are allocated between the products on a rational and consistent basis. The allocation may be based, for example, on the relative sales value of each product either at the stage in the production process when the products become separately identifiable, or at the completion of production. Most by-products, by their nature, are immaterial. When this is the case, they are often measured at net realisable value or current replacement cost and this value is deducted from the cost of the main product. As a result, the carrying amount of the main product is not materially different from its cost.

### Other costs

* + .25 Other costs are included in the cost of inventories only to the extent that they are incurred in bringing the inventories to their present location and condition. For example, it may be appropriate to include non-production overheads or the costs of designing products for specific customers in the cost of inventories.
  + .26 Examples of costs excluded from the cost of inventories and recognised as expenses in the period in which they are incurred are:
    - (a) abnormal amounts of wasted materials, labour, or other production costs;
    - (b) storage costs, unless those costs are necessary in the production process before a further production stage;
    - (c) administrative overheads that do not contribute to bringing inventories to their present location and condition; and
    - (d) selling costs.
  + .27 The Standard of GRAP on Borrowing Costs identifies limited circumstances where borrowing costs are included in the cost of inventories.
  + .28 An entity may purchase inventories on deferred settlement terms. When the arrangement effectively contains a financing element, that element, for example as the difference between the purchase price for normal credit terms and the amount paid, is recognised as interest expensed over the period of the financing.

### Cost of inventories of a service provider

* + .29 To the extent that service providers have inventories except those referred to in paragraph .02(d), they measure them at the costs of their production. These costs consist primarily of the labour and other costs of personnel directly engaged in providing the service, including supervisory personnel, and attributable overheads. The costs of labour not engaged in providing the service are not included. Labour and other costs relating to sales and general administrative personnel are not included but are recognised as expenses in the period in which they are incurred. The cost of inventories of a service provider does not include profit margins or non-attributable overheads that are often factored into prices charged by service providers.

# 

## ANNEXURE B: COMMENTS AND QUERIES RECEIVED INFORMING THE PROBLEM STATEMENT

| **Reference / Date** | **From** | **Number** | **Query** | **Response** |
| --- | --- | --- | --- | --- |
| **Letter/Email**  **9 May 2016** | City of Cape Town  Christiaan Peters | 1. | The City will be required to fully account for non-revenue water and electricity from the 2014/15 financial year. However, the guidance provided in the MFMA Circular No. 70 is extremely limited and simplified. [Extract from detailed query] | More detail is provided in the Position Paper on Water Balance Reporting. The DWS Municipal Water Balance Reporting – August 2014 is attached as Annexure D to the Position Paper and need to be read with its content. |
| 2 | An extract from MFMA Circular No. 70: Non-revenue water and electricity  As part of the 2014/15 budget and MTREF municipalities will be required to fully account for non-revenue water and electricity including technical and non-technical losses. In this regard, Annexure B provides a synopsis and explanation on how the accounting transactions should be applied. Although the example specifically deals with the accounting transactions for non-revenue water, the same needs to be applied for non-revenue electricity.  It must further be noted that the sample does not make any provision for VAT, the payment by debtor/consumers or for any opening or closing stock.  It focuses on the purchase, selling transactions and stock control only. | Opening and closing balances are ignored in order to keep the illustration as simple as possible. VAT is also ignored as VAT will be dealt with in a separate position paper, and, detailed guidance to be included in the existing Product Summary Document. |
|  |  | 3. | Furthermore, the norm for technical losses for electricity is different to that of the one used for water in Annexure B.  It is therefore necessary to use the correct norm and make it part and parcel of the municipalities’ budget policies. | Comment noted. Consideration to be given to provide guidance to the norms and standards in a separate paper. The intent of mSCOA and the Position Paper on Water Balance Reporting is not to deal with Norms and Standards but the classification within the mSCOA Classification Framework. |
|  |  | 4. | The MFMA does not provide an official definition for material losses. Thus, the City adopted the following definition: Material losses are losses that occur due to factors other than normal production and are regarded as material if its omission or misstatement will affect the decisions made by users of the information. Losses that occur due to normal production are those losses that are inherent to the process of producing or distributing a product. These costs are generally classified as production cost and are factored into the City’s tariffs; they therefore do not constitute material losses.  However, if actual production losses exceed the expected production losses, factored into the tariff, this difference would constitute material losses. Examples are:   * 1. Water losses due to burst pipes   2. Electricity losses due to cable theft or vandalism   3. Abnormal production losses.   The definition provided above has been accepted by the Auditor-General in previous audits. The City’s definition is in conflict with Annexure B of MFMA Circular No. 70.  Is National Treasury going to issue a definition of material losses, technical losses and non-technical losses? | Excluded from the scope of the mSCOA Project. The DWS Municipal Water Balance Guideline provides for all “non-revenue” components whether material or significant or not.  The various aspects are dealt with in detail in the referred to DWS Guideline. |
|  |  | 5. | When should transaction 1 be recorded?   * + Where is the point of entry in the system?   + The City has its own dams – should losses be calculated for rainwater collected in City dams?   + Should transactions between internal departments (sales from bulk water to reticulation) be recorded separately?   + Electricity cannot be stored as inventory. Should there be an Electricity Inventory (B/S) account as well?   + Prices are different for specific schemes and in-take points. What purchase price should be used to account for purchases? How is the purchase price calculated? Are any of these inventory accounting techniques appropriate: first-in-first-out, weighted average, last-in-first-out, standard costing? | Example revised and transactions supplemented by notes. |
|  |  | 6. | How is the cost of sales price calculated? Is it an average price?   * Water is normally treated / purified after purchase. Should these costs form part of the cost of sales price? What other costs could form part of the cost of sales? * The City’s electricity sales consist of 20 different tariff types/ products. How should the cost of sales account relate to these different sales accounts? * What is the timing of these entries? Should it be accounted for monthly/ quarterly/ yearly? | This need to be defined by the Costing Methodology and Tariff Setting policies of the municipalities. |
|  |  | 7. | * + The norm for water quoted above of 2% - 3% is different to the City norm used in the past of 4% - 5%.   + Is the norm quoted above recommended or prescribed?   + What is the norm based on?   + Who is the authority dictating the norms?   + How should the norm be calculated? Will National Treasury provide a standardised calculation method for the norms?   + Geographical locations become imperative and in the case of electricity the extent of the service area directly influences the level of technical losses. Will this be included in the norm calculations? | Request is not within the scope of the mSCOA Project. |
|  |  | 8. | In the example this entry is a reflection of lost / stolen inventory when compared to actual inventory counted at year end. Normally when the City identifies theft, a council resolution is not necessary to account for the theft. How is this example different from say a stolen laptop?   * + Unlike debt write-off, the revenue was never recognised for non-technical inventory losses. How can you write off an entry where the revenue was never recognised? | Please refer to the revised example. |
| **Letter/Email**  **8 April 2016** | ASB  Jeanine Poggiolini | 9. | Paragraph 12 indicates that only “purified” water can be inventory. Any water that is controlled by the municipality should be recognised when it enters the municipality’s infrastructure and can be controlled – this water is typically not purified. In addition, the calculation in paragraph 13 excludes water transferred or distributed at no- or nominal charge. | Wording revised but content changed as well. Please refer to paragraph 13. |
| **FAQ DB Q5028** | Overstrand Municipality  Veronica Allen | 10. | This position paper contains, overall, too little information and there are no examples on how National Treasury sees the accounting of the water volume information in the financial system. With reference to water volume information required in terms of par. 13 bullet point 3. We fail to understand what transactions will be generated, using this information. We do not have the functionality in our financial system to record this information. It would seem that this type of information would be more appropriate in a costing system. We have all the required information available outside of the financial system and this is audited annually as part of water losses. | The content of the Position Paper on Water Balance Reporting expanded and with reference to Annexure C, the DWS Municipal Guideline on Water Balance Reporting need to be read together with the mSCOA Position Paper. |
|  |  | 11. | As National Treasury’s final position regarding water reporting will only be determined in the future, as stated in par 14, and due to the above point the municipality cannot give full comments on this position paper. | The content of the mSOCA Position Paper on Water Balance Reporting expanded, and with reference to Annexure C, the DWS Municipal Guideline on Water Balance Reporting need to be read together with the mSCOA Position Paper. |
|  |  | 12. | Where the municipalities who uses water from their own resources are concerned. Is it now the intention to move all the expenditure directly attributable to the purification of water away from the respective cost centres which includes salaries and wages, inventory – materials and supplies, inventory – consumables, contracted services and all other relevant expenditure, to the balance sheet item Water Inventory and from here reallocate the expenditure (as the water gets consumed) back to the statement of financial performance’s item segment under the line item Inventory – water as one transaction? This will cause a distorted picture of the total salaries and wages, contracted services, materials and supplies etc. | Please refer to paragraph 45 for indication of treatment works and natural sources. |

## ANNEXURE C: DEPARTMENT OF WATER AND SANITATION WATER BALANCE GUIDE AUGUST 2014

1. Non-revenue water is becoming the standard term replacing unaccounted-for water (UFW or UAW) in the water balance calculation and is the term recommended by the International Water Association in preference to UFW. It is a term that can be clearly defined, unlike the unaccounted-for water term which often represents different components to the various water suppliers. [↑](#footnote-ref-1)
2. Non-revenue water is becoming the standard term replacing unaccounted-for water (UFW or UAW) in the water balance calculation and is the term recommended by the International Water Association in preference to UFW. It is a term that can be clearly defined, unlike the unaccounted-for water term which often represents different components to the various water suppliers. [↑](#footnote-ref-2)