

CIGFARO *m*SCOA ANNUAL WORKSHOP

ITEM 9.1

Water Inventory

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national treasury

Department:
National Treasury
REPUBLIC OF SOUTH AFRICA




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NATIONAL TREASURY
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WATER INVENTORY

PROBLEM STATEMENT:

- Municipalities are not budgeting for water inventory in terms of GRAP 12, MFMA Circulars 93, 98 and 107 and, *m*SCOA chart of accounts.
- Some municipalities have partially budgeted in terms of GRAP12, however failed to transact, while other are transacting on Item Expenditure Bulk Purchases.
- Inventory cannot be issued if it was not purchased (transactions to be recorded accordingly).
- Municipalities are not budgeting for:
 - Billed Unmetered Consumption
 - Unbilled Authorised Consumption
 - Water Losses

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WATER INVENTORY

- GRAP 12 –*Inventory since 2006* and subsequently *mSCOA* introduced the purchasing of Inventory through the ITEM ASSET segment.
- It is important for the **user to understand** the accounting principles, for the correct budgeting and transacting of Inventory.
- System functionality must be checked, changed and updated specifically for Water Inventory as per Circular 93, 98 and 107 in the core financial system and correctly set-up against the *mSCOA* chart.
- Water Inventory cannot be issued if it was not purchased.
- Budgeting for the use of inventory should happen in the Item Expenditure: Inventory consumed, per function.
 - **When transacting for water purchased:**
Item Current Assets: Inventory: Input Volume: Current Liabilities: Trade and Other Payables
 - **When transacting for issuing of water:**
CR - Item Current Assets: Inventory: Water: Authorised Consumption: Billed Authorised Consumption: Billed Metered Consumption: Revenue Water
DR – Item Expenditure: Inventory Consumed: Water

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WATER INVENTORY ACCOUNTING PRINCIPLES

GRAP INVENTORY REQUIREMENTS

GRAP 12, par, 07 defines inventory as follows:

Inventories are assets defined as:

- (a) in the form of materials or supplies to be consumed in the production process;
- (b) in the form of materials or supplies to be consumed or distributed in the rendering of services;
- (c) held for sale or distribution in the ordinary course of operations; or
- (d) in the process of production for sale or distribution.

GRAP 12, Par, 31: Standard costs take into account normal levels of materials and supplies, labour, efficiency and capacity utilisation. They are regularly reviewed and, if necessary, revised in the light of current conditions.

GRAP 12 Par, 32: Inventory acquired through non-exchange transaction should be recorded at the cost of the inventory at its fair value as at the date it is acquired. Any transaction costs are recognised in accordance with the requirements of paragraphs 25 and 26 (Other Costs).

It is important **to understand** the accounting principles, for the correct budgeting and transacting of Inventory to ensure proper system functionality in the core financial system and the correct set-up against the *mSCOA* chart.

When budgeting and transacting, all inventory is purchased through the Current Assets and issued as inventory consumed to the appropriate categories.

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COST OF SUPPLY TO BE DETERMINED TO GET COST-REFLECTIVE TARIFFS

- *Scenarios for water acquisition:*
- **Free Water**
 - *Water at no cost*
 - *District supplies water to Local at zero cost*
- **Natural Resources (Bore holes/Dams/ Springs)**
 - *Cost is mainly in the form of cost to pay for diesel or electricity to disperse water*
 - *Water licences (secondary cost)*
- **Water Treatment**
 - *Cost of treating the water i.e., Chemicals and storage (secondary cost)*
 - *Labour cost of staff in water department (secondary cost)*
- **Bulk purchases**
 - *Buy water from DWA/Water Services Authority*
 - *Labour cost of staff in water department (secondary cost)*
- **Agency services**
 - *DM buys the water and stores it*
 - *Local distribute and charge for the water provided (Both should account for water inventory)*
 - Distribution commission is deducted from Agency fees*
 - Agency service cost (secondary cost)*

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ACQUISITION SCENARIOS

- How is cost accumulated if water is not purchased?

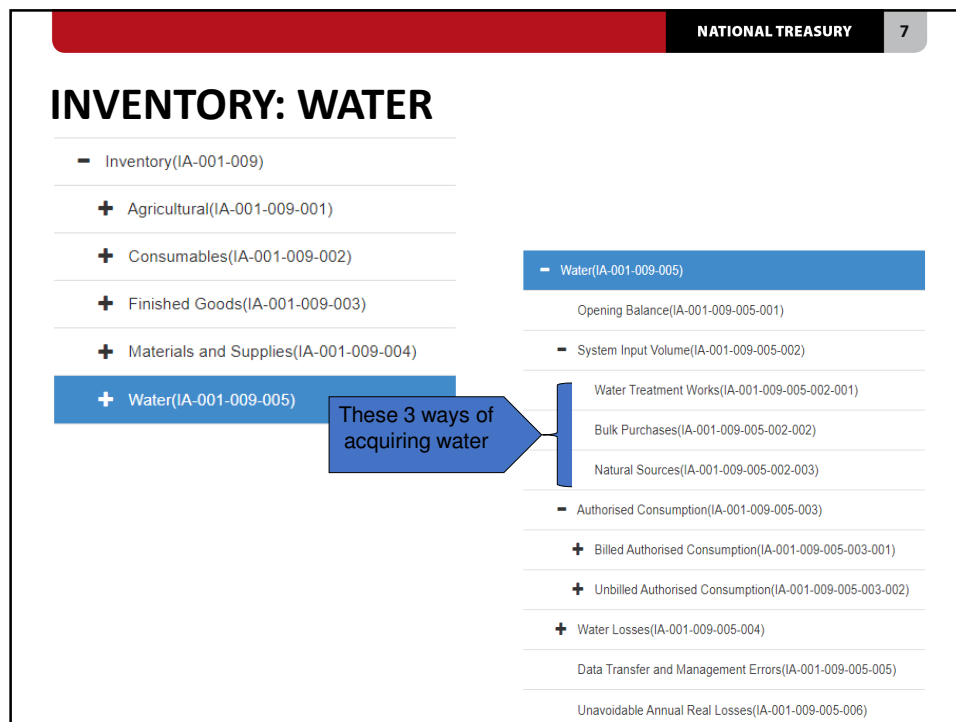
– Free water? Water is never free.

- Secondary cost/
- Labour
 - Extraction cost
 - Distribution cost
 - Chemicals/ Treatment
 - Maintenance
 - Infrastructure

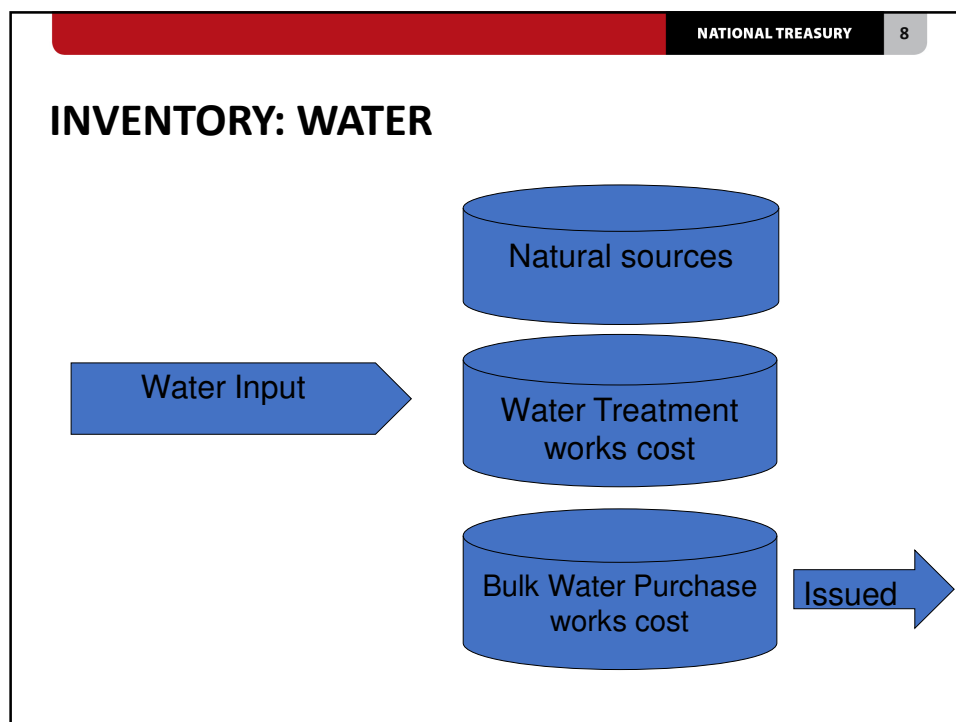
Conversion cost / Cost to make water potable.

Cost of water can not always be identified via an invoice but are accumulated via other transactions.

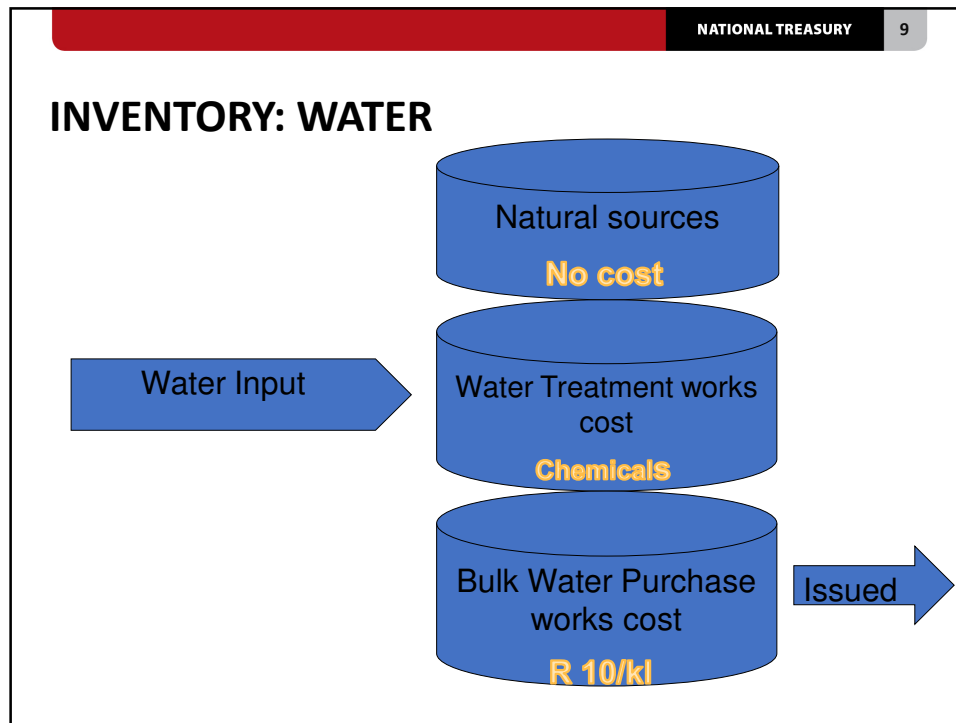
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NATIONAL TREASURY 10

BULK WATER PURCHASE AGAINST ITEM ASSETS

- Transactions : the debit and credit happens within the financial and stock system i.e. R100 for 50 kl.
- Bulk purchasing of Water from Water boards - Municipality receives the invoice and captures it.

Segment	Debit	Credit
Project	Default	Default
Function	Function: Water Management: Core: Water distribution	Function: Water Management: Core: Water distribution
Item	Assets: Current assets: Inventory: Water: System input Volume: Bulk Purchases	Liabilities: Current Liabilities: Trade and Other Payable Exchange Transactions: Water Bulk Purchase: Deposits
Funding	Fund:Operational:Revenue: General Revenue:Service Charges: Water	Fund:Operational:Revenue: General Revenue:Service Charges: Water
Region	Whole of Municipality	Whole of Municipality
Costing	Default	Default

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PAYMENT OF TRADE AND OTHER PAYABLES

- Payment of Water supplier - Municipality makes the payment of the Water account
- In the case of Natural Sources - No payment will be made. Possible license fee to be processed monthly/ annually

Segment	Debit	Credit
Project	Default	Default
Function	Function: Water Management: Core: Water distribution	Function: Water Management: Core: Water distribution
Item	Liabilities: Current Liabilities: Trade and Other Payable Exchange Transactions: Bulk Water : Withdrawals	Assets: Current Assets: Cash and Cash Equivalents: Cash at Bank: Bank Account: Specify (replace with account description): Withdrawals
Funding	Fund:Operational:Revenue: General Revenue:Service Charges: Water	Fund:Operational:Revenue: General Revenue:Service Charges: Water
Region	Whole of Municipality	Whole of Municipality
Costing	Default	Default

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NATURAL SOURCES: PRIMARY COST

- Municipality must value water at fair value/net realisable value if no payment is required

Segment	Debit	Credit
Project	Default	Default
Function	Function: Water Management: Core: Water distribution	Function: Water Management: Core: Water distribution
Item	Item: Salaries Item : Depreciation Item : All direct costs to create potable water supply	(Normal credit leg as per transactions listed)
Funding	Fund: Operational: Revenue: General Revenue: Service Charges: Water	Fund: Operational: Revenue: General Revenue: Service Charges: Water
Region	Whole of Municipality	Whole of Municipality
Costing	Default	Default

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ALL SOURCES: SECONDARY COSTS

- A host of secondary costs can be listed and should be treated via the Costing segment to accumulate the cost of producing potable water.

Segment	Debit	Credit
Project	Default	Default
Function	Function: Water Management: Core: Water distribution / WTW / Water storage	Function: Finance / Fleet/ Inventory/ Electricity
Item	Expenditure: Default	Expenditure: Default
Funding	Fund: Operational: Revenue: General Revenue: Service Charges: Water	Fund: Operational: Revenue: General Revenue: Service Charges: Water
Region	Whole of Municipality	Whole of Municipality
Costing	Costing: Charges	Costing: Recoveries

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ISSUE WATER INVENTORY IN ITEM EXPENDITURE AGAINST ITEM ASSET

Segment	Debit	Credit
Project	Default	Default
Function	Function: Water Management: Core: Water distribution	Function: Water Management: Core: Water distribution
Item	Expenditure: Inventory consumed: Water	Assets: Current Assets: Inventory: Water: Standard Rated: Authorised Consumption: Billed Authorised Consumption: Billed Metered Consumption: Revenue Water
Funding	Fund: Operational: Revenue: General Revenue: Service Charges: Water	Fund: Operational: Revenue: General Revenue: Service Charges: Water
Region	Per ward	Per ward
Costing	Default	Default
Amount	This is the cost of the water . ie system input volume cost	

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BILLING OF WATER SOLD TO CUSTOMERS

Revenue is billed on different tariffs as per water tariff of Council

Segment	Debit	Credit
Project	Default	Default
Function	Function: Water Management: Core: Water distribution	Function: Water Management: Core: Water distribution
Item	Assets: Current Assets: Trade and other Exchange Transactions: Trading Services and Customer Service debtors: Water: Monthly billing	Revenue: Exchange Transactions: Service Charges: Water: Sale : Conventional / Prepaid / Flat rate
Funding	Fund: Operational: Revenue: General Revenue: Service Charges: Water	Fund: Operational: Revenue: General Revenue: Service Charges: Water
Region	Per ward	Per ward
Costing	Default	Default

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PAYMENT FROM CONSUMERS FOR WATER

Segment	Debit	Credit
Project	Default	Default
Function	Function: Water Management: Core: Water distribution	Function: Water Management: Core: Water distribution
Item	Assets: Current Assets: Cash and Cash Equivalents: Cash at Bank: Bank Account: Specify (replace with account description): Deposits	Assets: Current Assets: Trade and other Exchange Transactions: Trading Services and Customer Service debtors: Water: Collections
Funding	Fund: Operational: Revenue: General Revenue: Service Charges: Water	Fund: Operational: Revenue: General Revenue: Service Charges: Water
Region	Per ward	Per ward
Costing	Default	Default

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INVENTORY: WATER

- Inventory (IA-001-009)
- + Agricultural (IA-001-009-001)
- + Consumables (IA-001-009-002)
- + Finished Goods (IA-001-009-003)
- + Materials and Supplies (IA-001-009-004)
- + Water (IA-001-009-005)

- Water (IA-001-009-005)

- Opening Balance (IA-001-009-005-001)
- System Input Volume (IA-001-009-005-002)
 - Water Treatment Works (IA-001-009-005-002-001)
 - Bulk Purchases (IA-001-009-005-002-002)
 - Natural Sources (IA-001-009-005-002-003)
- Authorised Consumption (IA-001-009-005-003)
 - + Billed Authorised Consumption (IA-001-009-005-003-001)
 - + Unbilled Authorised Consumption (IA-001-009-005-003-002)
- + Water Losses (IA-001-009-005-004)
- Data Transfer and Management Errors (IA-001-009-005-005)
- Unavoidable Annual Real Losses (IA-001-009-005-006)

Water losses as determined by Engineers and telemetric measurement

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WATER LOSSES

Segment	Debit	Credit
Project	Default	Default
Function	Function: Water Management: Core/ Non Core: Water distribution	Function: Water Management: Core/ Non Core: Water distribution
Item	Gains and losses: Water losses (see next slide)	Assets: Current assets: Inventory: Water: Water losses (see next slide)
Funding	Fund: Operational: Revenue: General Revenue: Service Charges: Water	Fund: Operational: Revenue: General Revenue: Service Charges: Water
Region	Per ward/ Whole of Mun	Per ward/Whole of Mun
Costing	Default	Default

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INVENTORY: WATER		
Debit Item Gains and Losses : Water losses		Credit Item Assets: Current Assets: Inventory : Water: Water losses
<ul style="list-style-type: none"> Water Losses(Z-008) <ul style="list-style-type: none"> Apparent Losses(Z-008-001) <ul style="list-style-type: none"> Unauthorised Consumption(Z-008-001-001) Customer Meter Inaccuracies(Z-008-001-002) Real Losses(Z-008-002) <ul style="list-style-type: none"> Leakage on Transmission and Distribution Mains(Z-008-002-001) Leakage and Overflows at Storage Tanks/Reservoirs(Z-008-002-002) Leakage on Service Connections up to the point of Customer Meter(Z-008-002-003) Data Transfer and Management Errors(Z-008-003) Unavoidable Annual Real Losses(Z-008-004) 		<ul style="list-style-type: none"> Water Losses(IA-001-009-005-004) <ul style="list-style-type: none"> Apparent Losses(IA-001-009-005-004-001) <ul style="list-style-type: none"> Unauthorised Consumption(IA-001-009-005-004-001-001) Customer Meter Inaccuracies(IA-001-009-005-004-001-002) Real Losses(IA-001-009-005-004-002) <ul style="list-style-type: none"> Leakage on Transmission and Distribution Mains(IA-001-009-005-004-002-001) Leakage and Overflows at Storage Tanks/Reservoirs(IA-001-009-005-004-002-002) Leakage on Service Connections up to the point of Customer Meter(IA-001-009-005-004-002-003) Data Transfer and Management Errors(IA-001-009-005-005) Unavoidable Annual Real Losses(IA-001-009-005-006) Non-revenue Water(IA-001-009-005-007)

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NATIONAL TREASURY		20
BUDGETING FOR WATER INVENTORY - MUNICIPALITIES		
<ul style="list-style-type: none"> Municipalities must budget as follows: Current assets <ul style="list-style-type: none"> Inventory: Water Opening Balance Inventory: Water: System Input Volume : Bulk Purchases Water Authorised Consumption <ul style="list-style-type: none"> Billed Metered Consumption Billed Unmetered Consumption Un-Billed Authorised Consumption Expenditure <ul style="list-style-type: none"> Inventory Consumed: Water Gains and Losses <ul style="list-style-type: none"> Inventory: Water Losses 		

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WATER INVENTORY – SEGMENT REPORTING

Data strings for water inventory per segment

PROJECT CODE	Account Name	Function Main Level Description	FUNCTION CODE	Account Name	Item Main Level Description	Account Name	Account Name
PO0020000			FX0160010				
000000000			02000000000				
000000000	Operational/Municipal	Water	00000000000	Function:Water Management:Core	Assets Current Assets:Inventory:Water:System Input	Fund: Operational: Revenue:General	
000000000	Running Cost	Management	000000000	Function:Water Distribution	Current Assets Volume: Bulk Purchases	Revenue:Service Charges: Water	

- Using the Wizard tool to draw water inventory report for all the municipalities across the province as follows:

- Provincial
- Item segment
 - » Assets
 - » Current assets
 - » Inventory
 - » Water
- Expenditure
 - » Inventory Consumed
 - » Water
- Gains and Losses
- Item Level Description
- Item Main Level Description
- Item mSCOA Account
- Fund level Description

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THANK YOU



For additional information on national and provincial budgets, please visit our new budget data portal: <https://vulekamali.gov.za>

www.municipalmoney.gov.za
open local government budget data portal

Explore easy-to-understand, verified financial information for every single municipality in South Africa in one place.

For information on local government finances, please visit: <https://municipalmoney.gov.za>



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Department:
National Treasury

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