



**Valuation of water and material
and supplies Inventory
Methodology
2025/2026**

1. BACKGROUND

Section 122 of Municipal Finance Management Act (MFMA) dictates municipalities including Polokwane municipality to prepare annual financial statements which will fairly presents state of affairs of the municipality`s performance against budget, management of revenue, expenditure, assets, liabilities, business activities, financial results and the financial position as at the end of financial year. One of the key schedules that is used to support AFS is the Inventory valuation schedule. The inventory valuation must comply with requirements of GRAP 12. (GENERALLY RECOGNISED ACCOUNTING PRACTICE)

Polokwane Municipality has three different types of inventories:

- (a) Materials and Supplies (Consumable)
- (b) Land Inventory and,
- (c) Water Inventory

This methodology will only deal with the valuation of water inventory and material and supplies.

2. PURPOSE

The purpose of this document is to provide guidance on how Polokwane municipality value its water inventory and material and supplies inventory. The valuation of water inventory must be read together with the calculation of both water inventory and water distribution loss calculations.

PART ONE (WATER INVENTORY VALUATION)

3. INVENTORY VALUATION

Water inventory is valued at the weighted average cost from all sources from which the Polokwane municipality gets water. Polokwane Municipality has three water sources:

- (a) Lepelle Northern Water
- (b) Pelgrimshoop (Private)
- (c) Own Water (Purified from the Water Treatment Plants)

Step 1: Cost per KL

- Lepelle Northern Water and Pelgrimshoop cc cost per KL are as per the signed agreement. (Tax Invoice)
- Own Water
The cost per KL is calculated based on the direct costs to extract water and purification cost until the water is ready and is of the required standard to be consumed. The following direct costs are considered for the purposes of the calculation, Fuel cost, Electricity, Water purification costs and any other cost that is deemed necessary by the management.

Extract from the calculation

Direct Costs	
Electricity costs	21 384 660.73
Diesel/Fuel Costs	780 700.20
Purification costs including chemicals	1 475 555.80
WRM Charge	2 187 798.99
Total Direct Costs	25 828 715.72

Step 2: Readings from water sources

Obtain all the readings from the water sources, e.g., Lepelle, Pelgrimshoop and all municipal water treatment plants. **See below**

Extract from the calculation

Average cost calculation			
	Quatity	Cost P/KL	Total
Opening Water	56 207	8.09	454 942.82
Lepelle NW	23 113 062	10.90	251 932 375.80
Own Sourced Water	7 129 577	3.62	25 828 715.72
Pelgrimshoop	441 300	6.36	2 805 917.80
	30 740 146	9.14	281 021 952.14

The above table shows how the average weighted cost for water inventory was arrived at.

This unit cost per kilolitre can be applied against the verified quantity of water counted at year end to get to the value of water inventory in the annual financial statements. Similarly, the same cost can be applied against the calculated quantity of unaccounted water to get to the value of distribution loss as disclosed in the annual financial statements.

PART TWO (MATERIALS AND SUPPLIES)

Inventory valuation methodology

GRAP 12 is the accounting standard that guides the valuation of inventory.

GRAP 12 Requirements

Measurement at recognition

GRAP 12, paragraph 15 and 16 states that:

Inventories that qualify for recognition as assets shall initially be measured at cost.

Where inventories are acquired at through a non-exchange transaction, their cost shall be measured at their fair value as at the date of acquisition.

Measurement after recognition

Paragraph 17: Inventories shall be measured at the lower of cost and net realisable value.

GRAP 12 defines **Net realisable value** as:

the estimated selling price in the ordinary course of operations less the estimated costs of completion and the estimated costs necessary to make the sale, exchange or distribution.

Paragraph 38 of GRAP 12 states: -

The cost of inventories may not be recoverable if those inventories are damaged, if they have become wholly or partially obsolete, or if their selling prices have declined.

The cost of inventories may also not be recoverable if the estimated costs of completion of the estimated costs to be incurred to make the sale, exchange or distribution have increased. The practice of writing inventories down below cost to net realisable value is consistent with the view that assets should not be carried more than the future economic benefits or service potential expected to be realized from their sale, exchange, distribution or use.

Inventory valuation

Inventory is measured using the weighted average cost method. This weighted average cost is automatically calculated on the inventory submodule and is updated immediately upon purchase of inventory items.

The variables to arrive at the valuation is quantity multiplied by the lower of weighted average cost or NRV.

1. Stock quantity

The stock quantity is determined through quarterly stock counts. The counts are manually recorded on stock count sheets. These sheets are then used to compare this physical count to the quantity as reflected on the Inventory module.

Any shortages are investigated after which the system is adjusted to reflect the amounts as per the stock count sheet.

2. Calculation of net realisable value

The following methodology will be applied when valuing inventory:

- The cost is obtained from the inventory submodule.
- The municipality arrives at the NRV by:
 - sourcing of quotations for all stock items reflecting on the stock listing as of 30 June, being the financial year end.
 - The quotations will be sourced in the month of June which will be regarded as the market-related price at year end.
 - To arrive at the NRV, the cost to sell will be deducted from the above-mentioned market-related price.
 - The cost to sell is computed by applying an estimated rate of 4% to the market-related price as reflected on the quotations. This rate was obtained from the municipality's appointed auctioneer commission rate fee.
- The weighted average cost as at year-end will be compared to the NRV. The lower of this weighted average cost and NRV will therefore be used to value each stock item at year-end. This adjustment between the weighted average cost as reflected on the submodule and the computed valuation (being the lower of weighted average cost and NRV) is adjusted on the General ledger only. The rationale behind this is to preserve the historic weighted average cost values on the sub-module.

Inventory Write-offs

The amount of any write-down of inventories shall be recognised as an expense in the period in which the write-down or loss occurs.

Inventory write-offs occur in the following instances:

- The identification of obsolete items. Obsolete items are slow-moving items that lose value as a result of technological advancements.
- Stolen items
- Where the NRV is less than the weighted average cost.

CONCLUSION

This methodology will be applied consistently by the Polokwane municipality for the valuation of water inventory and material and supplies inventory to be disclosed in the annual financial statements.