

MUNICIPAL FINANCE MANAGEMENT ACT



**LOCAL
GOVERNMENT
CAPITAL ASSET
MANAGEMENT
GUIDELINE**

National Treasury

ISBN: 978-0-621-38093-4

To obtain additional copies of this document please contact:

The Librarian
National Treasury
Private Bag X115
Pretoria
0001
South Africa
Tel: +27 12 315 5850
Fax: +27 12 315 5957

This document is also available on the Internet at: www.treasury.gov.za

Comments on this document should be submitted to: mfma@treasury.gov.za

FOREWORD

The Local Government: Municipal Finance Management Act (MFMA) is the key component of the broader legislative framework governing municipalities, and aims to strengthen financial management and support municipalities in moving towards an even more sustainable future. The MFMA has been phased in gradually since 2004 to take into account the diverse capacities of municipalities and allow time to build staff capacity and introduce new systems and procedures.

The rapidly increasing demand for municipal services and the National initiatives for accelerated infrastructure development and maintenance at the local level have increased, and will continue for some time to increase, the scale and value of municipal assets. These assets will require a higher level of expertise and knowledge of asset management and management systems to ensure that the capacity necessary to deliver the required services at the desired standards and efficient levels of costs is achieved. Legislation governing municipalities must ensure improved asset management from an operational and, more importantly, from a financial perspective.

Whilst it is estimated that municipalities are custodians of hundreds of billions of Rand in public assets, the true total value of municipal infrastructure assets is still being determined. We must therefore acknowledge the magnitude of the challenge facing municipalities in providing and managing public assets in a sustainable manner. As municipalities embrace the challenge to address infrastructure backlogs and the expansion of capital works, they must also maintain or renew existing assets. Maintenance is critical as it will always cost more – *much more* - to replace an asset which is not properly maintained. Asset management includes maintaining and renewing existing assets as well as providing access to new assets and services in a sustainable and affordable manner.

Sustainable asset management requires a municipality to take a holistic approach by understanding the future cost and service consequences of its assets and matching these against revenues – problems arise when only current costs and revenues are matched. For example, every Rand spent in one year on a new asset contributes, on

average, 10 cents to every subsequent maintenance, operations and renewal budgets. This money has to be raised from municipal revenue.

The lack of reliable data on municipal assets and their values presents a major challenge for asset managers to justify scarce resources to maintain and renew assets. Current available research points to the lack of adequate municipal asset registers as a common cause for audit qualifications. Although some municipalities have initiated projects to develop asset registers, the information is still generally unreliable and does not fully comply with the accounting standards, and are thus subject to audit queries and qualification. In addition there have been inconsistencies in the approach taken during early implementation resulting in extremely high costs being incurred in establishing asset registers and systems.

This guideline has been developed to provide practical assistance to all municipalities and municipal entities on the process of managing public assets and forms part of a comprehensive support programme provided by the National Treasury to assist municipalities with financial reforms.

It focuses on capturing essential information to assist councillors and planners with broader strategic asset management decisions and to assist engineers, finance managers and officials working with assets and their management with operational decisions. It is also aimed at assisting municipalities and entities to comply with the accounting standards and reporting requirements.

The guideline also recognises the need to bring together the technical operations managers and finance practitioners through an integrated and holistic approach to asset management. This ensures that operational asset managers understand the financial implications of their responsibilities and the accounting rules that must be applied, and in turn ensures that finance practitioners, who manage the asset registers, fully understand operational needs and enable them to provide information systems that support all aspects of asset management.

The guideline aims to firstly assist all municipalities in establishing accurate and complete asset registers based on the existing policies and accounting standards.

The future asset management and financial challenges – including those relating to current value accounting, periodic asset revaluations, alternative depreciation methods, full cost recovery as basis for setting tariffs and fees, capital investment planning and identification of costs of capital and return on investments in municipalities are all important aspects that must be reviewed as we incrementally implement the reforms. This guide provides pointers to such issues, however, it may not be dealt with conclusively, and as these will be the subject of further research over the coming years.

The guideline is the culmination of a joint project of the National Treasury and key stakeholders, including municipalities and sector departments. It is aligned with the needs of sector department and provides a valuable reference point to address all asset management related matters in municipalities.

Questions and suggestions on improvements and necessary additions to the guide should be forwarded to National Treasury, through the MFMA help facility, by email to: mfma@treasury.gov.za showing in the subject field “Asset Management Guideline” to enable a question/suggestion to be routed to the most appropriate official.

The guide and any other relevant documents will be posted on the following websites for easy reference www.treasury.gov.za/legislation/mfma and <http://oag.treasury.gov.za>.

Municipalities are strongly encouraged to utilise this guide to plan for and implement the asset management function, which includes asset registers and related management systems.

National Treasury



CONTENTS

TANGIBLE CAPITAL ASSETS

Acronyms	1
Sections	11
1 INTRODUCTION	11
1.1 Purpose	11
1.2 Scope	11
1.3 Statutory framework	13
1.4 Structure	13
2 COORDINATION: ASSET MANAGEMENT IMPLEMENTATION	15
2.1 Coordination between national departments	15
2.1.1 National coordination for municipal asset management.....	15
2.2 Coordination for successful implementation within the municipality.....	16
2.2.1 Critical success factors	16
2.2.2 Typical asset management steering committee (AMSC)	17
2.2.3 Leadership required to implement asset management	20
3 ASSET MANAGEMENT	21
3.1 Effective asset management	21
3.2 Asset strategy.....	22
3.2.1 Asset management plans	22
3.3 Asset life cycle.....	23
3.3.1 Asset life-cycle costs.....	25
3.3.2 Planning and budgeting phase	27
3.3.3 Acquisition phase.....	32
3.3.4 Operation and maintenance phase.....	37
3.3.5 Disposal phase	43
4 GOVERNANCE AND INTERNAL CONTROLS	47
4.1 System of delegation and accountability	48
4.1.1 Systems of delegation required	48
4.1.2 Principles of delegation.....	48
4.1.3 Asset management policies.....	51
4.2 Safeguarding and maintaining.....	56



4.2.1 Responsibilities of each asset manager 56

4.2.2 Internal controls over asset registers 57

4.3 Planning and budgeting 63

4.4 Monitoring and reporting 64

5 ASSET REGISTERS 65

5.1 Creation of the asset register 65

5.1.1 Information to be Included in an Asset Register 67

5.2 Condition assessment 71

5.3 System linkages and interfaces 74

5.4 Table of useful lives 77

6 ACCOUNTING FOR CAPITAL ASSETS 85

6.1 Recognition of capital assets 85

6.1.1 Definition and recognition criteria for assets 88

6.1.2 Management of minor assets (assets below the capitalisation threshold) 92

6.1.3 Valuation at initial recognition 93

6.2 Elements of cost 97

6.3 Component approach 98

6.4 Additional guidance on determining cost for initial recognition 100

6.4.1 Depreciated replacement cost 100

6.5 Determination of useful life 101

6.6 Depreciation 102

6.6.1 Depreciation methods 102

6.6.2 Accounting transactions for depreciation 104

6.7 Subsequent costs 105

6.7.1 Rehabilitation/Enhancements/Renewals of capital assets 108

6.8 Capitalising complex projects 111

6.9 Measurement after recognition 113

6.10 Subsequent review of assets 115

6.10.1 Review of depreciation method 116

6.10.2 Review of residual value and useful life 116

6.10.3 Impairment Review 118

6.11 Accounting treatment on disposal 120

6.12 Capital spares 121

6.13 Capital work in progress 123

Bibliography i



TANGIBLE CAPITAL ASSETS



Acronyms

AMSC	Asset Management Steering Committee
AMT	Asset Management Team
ASB	Accounting Standards Board
BOOT	Build-own-operate-transfer
CFO	Chief Finance Officer
CRC	Current Replacement Cost
DME	Department of Minerals and Energy
DPLG	Department of Provincial and Local Government
DPW	Department of Public Works
DRC	Depreciated Replacement Cost
DWAF	Department of Water and Forestry Affairs
EDIH	Electrical Distribution Industry Holdings Pty Ltd
EUL	Expected Useful Life
GAAP	Generally Accepted Accounting Practice
GAMAP	Generally Accepted Municipal Accounting Practices
GIAMA	Government Immovable Asset Management Act
GIS	Geographical Information System
GPS	Global Positioning System
GRAP	Generally Recognised Accounting Practices
IAS	International Accounting Standards
IDP	Integrated Development Plan
IFRS	International Financial Reporting Standards
IIMM	International Infrastructure Management Manual
IMESA	Institute of Municipal Engineering of Southern Africa
IPSAS	International Public Sector Accounting Standards
LGCAMG	Local Government Capital Asset Management Guideline
MFMA	Municipal Finance Management Act, No. 56 of 2003
MPRA	Municipal Property Rates Act, No. 6 of 2004
MSA	Municipal Systems Act, No. 32 of 2000
NDOT	National Department of Transport
NERSA	National Energy Regulator of South Africa
NIMS	National Infrastructure Maintenance Strategy
NT	National Treasury
OAG	Office of the Accountant-General
PFMA	Public Finance Management Act, No. 1 of 1999



PPE	Property, Plant & Equipment
PPP	Public Private Partnerships
REDS	Regional Electricity Distributors
RUL	Remaining Useful Life
SALGA	South African Local Government Association
SDBIP	Service Delivery and Budget Implementation Plan



Definitions

Every effort has been made to use definitions established through legislation, standards of accounting and other guidance on asset management, hence reference has been made to sources. Where definitions do not exist, terminology has been defined for the purposes of this guideline.

Accounting Standards Board means the board established in terms of section 87 of the Public Finance Management Act (PFMA). The section refers to the function of the board, which is to establish standards of Generally Recognised Accounting Practice (GRAP) as required by the Constitution of the Republic of South Africa. (PFMA section 1)

An **active market** is a market in which all the following conditions exist:

- (a) the items traded within the market are homogeneous;
- (b) willing buyers and sellers can normally be found at any time; and
- (c) prices are available to the public. (GRAP 102)

Asset Custodian is a person in any position or level in the organisation entrusted with the safeguarding and use as well as the condition monitoring of a specific asset.

Asset Life-Cycle is the cycle of activities that an asset goes through - including planning, design, initial acquisition and/or construction, cycles of operation and maintenance and capital renewal, and finally disposal.

Asset Management is a broad function and includes a structured process of decision-making, planning and control over the acquisition, use, safeguarding and disposal of assets to maximise their service delivery potential and benefits, and to minimise their related risks and costs over their entire life.

Asset Manager is any official who has been delegated responsibility and accountability for the control, usage, physical and financial management of the municipality's assets in accordance with the entity's standards, policies, procedures and relevant guidelines.



Asset Register is a record of information on each asset that supports the effective financial and technical management of the assets, and meets statutory requirements.

The asset register should also facilitate proper financial reporting and is ultimately the responsibility of the Chief Financial Officer (CFO).

Assets are resources controlled by an entity as a result of past events and from which future economic benefits or service potential are expected to flow to the entity. (GRAP 1)

Capital Assets are all assets with a life cycle of greater than one year and above the capitalisation threshold (where applicable). For example, this would include property, plant and equipment (infrastructure network, furniture, motor vehicles, computer equipment, etc.), intangible assets, and investment property.

Capitalisation Threshold is the value above which assets are treated as capital assets and entered into an asset register from which reporting in the financial statements (specifically the Statement of Financial Position) is extracted.

Carrying Amount is the amount at which an asset is recognised after deducting any accumulated depreciation and accumulated impairment losses. (GRAP 17)

Class of Property, Plant and Equipment means a grouping of assets of a similar nature or function in an entity's operations that is shown as a single item for the purpose of disclosure in the financial statements. (GRAP 17) (This definition of class applies to all capital assets.)

Class of assets is also sometimes referred to as the asset hierarchy.

Component is a part of an asset with a significantly different useful life and significant cost in relation to the rest of the main asset. Component accounting requires that each such part should be separately accounted for and is treated separately for depreciation, recognition and derecognition purposes. It is also referred to as separately depreciable parts.



Cost is the amount of cash or cash equivalents paid or the fair value of the other consideration given to acquire an asset at the time of its acquisition or construction or, where applicable, the amount attributed to that asset when construction or, where applicable, the amount attributed to that asset when initially recognised in accordance with the specific requirements of other Standards of Generally Recognised Accounting Practices (GRAP). (GRAP 17)

Current Replacement Cost is the cost of replacing an existing asset with a modern asset of equivalent capacity. (DPLG Guidelines)

Depreciable Amount is the cost of an asset, or other amount substituted for cost, less its residual value. (GRAP 17)

Depreciated Replacement Cost is a measure of the current value of an asset based on its current replacement cost less an allowance for deterioration of condition to date (based on the fraction of remaining useful life/expected useful life).

Depreciation is the systematic allocation of the depreciable amount of an asset over its useful life. (GRAP 17)

Economic Life is either:

- (a) the period over which an asset is expected to yield economic benefits or service potential to one or more users, or
- (b) the number of production or similar units expected to be obtained from the asset by one or more users. (GRAP 13)

Enhancement/Rehabilitation is an improvement or augmentation of an existing asset (including separately depreciable parts) beyond its originally recognised service potential for example, remaining useful life, capacity, quality, and functionality.

Fair Value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction. (GRAP 17)



Financially Sustainable, in relation to the provision of a municipal service, means the provision of a municipal service in a manner aimed at ensuring that the financing of that service from internal and external sources, including budgeted income, grants and subsidies for the service, is sufficient to cover the costs of—

- (a) the initial capital expenditure required for the service;
- (b) operating the service; and
- (c) maintaining, repairing and replacing the physical assets used in the provision of the service. (MSA section 1)

Generally Accepted Municipal Accounting Practice (GAMAP): These accounting standards are applicable to municipalities. These standards will be phased out as the GRAP standards become effective.

Generally Recognised Accounting Practice (GRAP) means an accounting practice complying in material respects with standards issued by the Accounting Standards Board. (PFMA section 1)

Infrastructure means assets that usually display some or all of the following characteristics

- (a) they are part of a system or network;
- (b) they are specialised in nature and do not have alternative uses;
- (c) they are immovable; and
- (d) they may be subject to constraints on disposal.(GRAP 17)

Examples of infrastructure assets include road networks, sewer systems, water and power supply systems and communication networks. Moveable assets such as vehicles that are directly used in the delivery of the service (such as waste removal trucks can also be included as part of infrastructure).

Maintenance/Refurbishment to an asset will restore or maintain the originally assessed future economic benefits or service potential that an entity can expect from an asset and is necessary for the planned life to be achieved.



Material omissions or misstatements of items are material if they could, individually or collectively, influence the decisions or assessments of users made on the basis of the financial statements. Materiality depends on the nature or size of the omission or misstatement judged in the surrounding circumstances. The size or nature of the information item, or a combination of both, could be the determining factor. (GRAP 1)

Minor Asset is an asset other than a capital asset, which is fully depreciated in the year of acquisition. Minor assets need to be managed and safeguarded and recorded in a register.

Modern Equivalent Asset is an asset that replicates the existing asset with the most cost-effective asset performing the same level of service. This includes improvements in technology that may change the nature, life and value of an asset. (IIMM)

Municipal Manager is the person defined as the Accounting Officer of a municipality (MFMA S60). For more information on the accounting officer/municipal manager refer to chapter 8 of the MFMA.

Property, Plant and Equipment are tangible items that:

- (a) are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and
- (b) are expected to be used during more than one reporting period. (GRAP 17)

Recognition is the process of incorporating in the statement of financial position or statement of financial performance an item that meets the definition of an element (of financial statements) and satisfies the criteria for recognition, namely:

- It is probable that any future economic benefit or service potential associated with the item will flow to or from the entity and
- The item has a cost or value that can be measured reliably. (Framework for the Preparation and Presentation of Financial Statements paragraph 109 and 110)

Recoverable Amount is the higher of a cash-generating asset's or unit's net selling price and its value in use.



Recoverable Service Amount is the higher of a non-cash-generating asset's fair value less costs to sell and its value in use. (GRAP 17)

Rehabilitation/Enhancement is an improvement or augmentation of an existing asset (including separately depreciable parts) beyond its originally recognised service potential, for example, remaining useful life, capacity, quality, and functionality.

Refurbishment/Maintenance to an asset will restore or maintain the originally assessed future economic benefits or service potential that an entity can expect from an asset and is necessary for the planned life to be achieved.

Remaining Useful Life is the time remaining (of the total estimated useful life) until an asset ceases to provide the required service level or economic usefulness.

Renewal is the work required to replace/enhance/rehabilitate an asset. Expenses on renewal works are considered capital expenditure.

Reproduction Cost is the cost of reproducing the asset in its present physical form (substantially the same materials and design).

The **Residual Value** of an asset is the estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life. (GRAP 17)

Senior Manager is a manager referred to in section 56 of the Municipal Systems Act (MSA) being someone reporting directly to the municipal manager. (MFMA paragraph 1)

Service Potential is a tangible capital asset's output or service capacity, normally determined by reference to attributes such as physical output capacity, quality of output, associated operating costs and useful life.



Useful Life is:

- (a) the period over which an asset is expected to be available for use by an entity, or
- (b) the number of production or similar units expected to be obtained from the asset by an entity. (GRAP 17)

The useful life of an asset is entity specific.



Sections

1 INTRODUCTION

1.1 Purpose

The purpose of this guideline is to assist municipalities in their financial management improvement processes by implementing sound asset management practices as required by the MFMA and GRAP.

Asset management is seen as being central to providing required services in a cost-effective, efficient and transparent manner. The National Treasury (NT) seeks to create a mechanism to coordinate various national initiatives for the benefit of municipalities. Various mutually supporting guidelines have been aligned. These include:

- NT issued:
 - Asset Management Framework
 - Local Government Capital Asset Management Guideline
- The DPLG “Guidelines for Infrastructure Asset Management in Local Government”
- Sector specific guidelines on how asset management principles would be applied for efficient, effective and economical management of sectoral assets:
 - Verification and Valuation of Major Water Infrastructure Assets – Department of Water and Forestry Affairs (DWAF);
 - International Infrastructure Management Manual co-authored by Institute of Municipal Engineering of Southern Africa IMESA; and
 - National Infrastructure Maintenance Strategy (NIMS) managed by Department of Public Works (DPW).

1.2 Scope

The MFMA has made NT responsible for providing support for the implementation of the Act, the setting of standards and guidelines as well as building capacity. This guideline is aimed at supporting the implementation of the MFMA, specifically, section 63. The asset management requirements include:

- Key asset management functions such as:
 - safeguarding assets,
 - maintaining assets,



- Establishing and maintaining a management, accounting and information system that accounts for the assets of the municipality;
- Asset valuation principles in accordance with GRAP;
- Establishing and maintaining systems of internal controls over assets;
- Establishing and maintaining asset registers;
- Clarifying responsibilities and accountabilities for the asset management process.

The accounting and reporting principles governing capital assets are covered in more detail in standard specific guidelines and should be referred to in conjunction with the Local Government Capital Asset Management Guideline (LGCAMG). Examples of accounting standards that cover assets are:

- GRAP 17 on Property, Plant & Equipment (PPE)
- GRAP 16 on Investment Properties
- GRAP 102 on Intangible Assets
- GRAP 100 on Non-current Assets Held for Sale and Discontinued Operations
- GRAP 101 on Agricultural Activities
- IAS 36 on Impairment of Assets.

Other relevant accounting standards are:

- GRAP 12 on Inventories
- GRAP 11 on Construction Contracts.

This guideline is based on the currently promulgated standards and policies and therefore does not discuss in detail future developments in the field of current cost accounting and regular revaluations of assets to current replacement values. These are key challenges for the near future and are the subject of current policy research.

While it is recognised that when new policies and standards on current valuations of assets are promulgated, the calculation of full costs of asset utilisation will improve and hence better pricing models for setting of service fees and tariffs and potential for full cost recovery, the existing capacity of municipalities and the lack of knowledge and data relating to what assets are controlled and used by



municipalities, the current policies and standards need to be implemented urgently.

Thus this guide addresses the first essential steps in asset management relating to the identification, recognition and recording of all existing assets and new acquisitions. This culminates in the establishment of credible and accurate data bases in asset registers that will facilitate the implementation of Section 63 of the MFMA.

1.3 Statutory framework

The statutory framework for this Guideline is:

- The Constitution of the Republic of South Africa, 1996
- Municipal Systems Act, 2000
- Municipal Finance Management Act, 2003.

The Constitution's prime mandate for Local Government is that services are provided in a sustainable manner. (Section 152)

The MSA in sections 4(2)(d) states that a municipality has the duty to -

- strive to ensure that municipal services are provided to the local community in a financially and environmentally sustainable manner.

Good asset management facilitates the provision of services in a financially sustainable manner.

As noted under the Scope, the MFMA (section 63) states specific duties in respect of asset management, i.e. the safeguarding and maintenance of assets, valuation in accordance with GRAP, maintaining a system of internal control over assets and keeping an asset register. Each municipal manager must ensure that the provisions of S63 are implemented.

1.4 Structure

This document is divided into different sections with numbered pages inserted at the end of each section to facilitate future updates (which will be on a loose-leaf basis) without disrupting the sequential numbering.



2 COORDINATION: ASSET MANAGEMENT IMPLEMENTATION

2.1 Coordination between national departments

2.1.1 National coordination for municipal asset management

The responsibility for assisting and supporting local government in implementing reforms on asset management rests with NT, DPLG and sector departments. NT provides standards and guidance on the financial aspects of asset management. NT further provides principles of good asset management based on best practice and the implementation thereof by municipalities. Key to the implementation is the establishment of complete and reliable asset registers.

NT guidelines also provide the financial, accounting and management context within which the various sector specific guidelines can operate. NT will review and publish any applicable guidelines on its web site.

The various guidelines are intended to come together in the following manner:

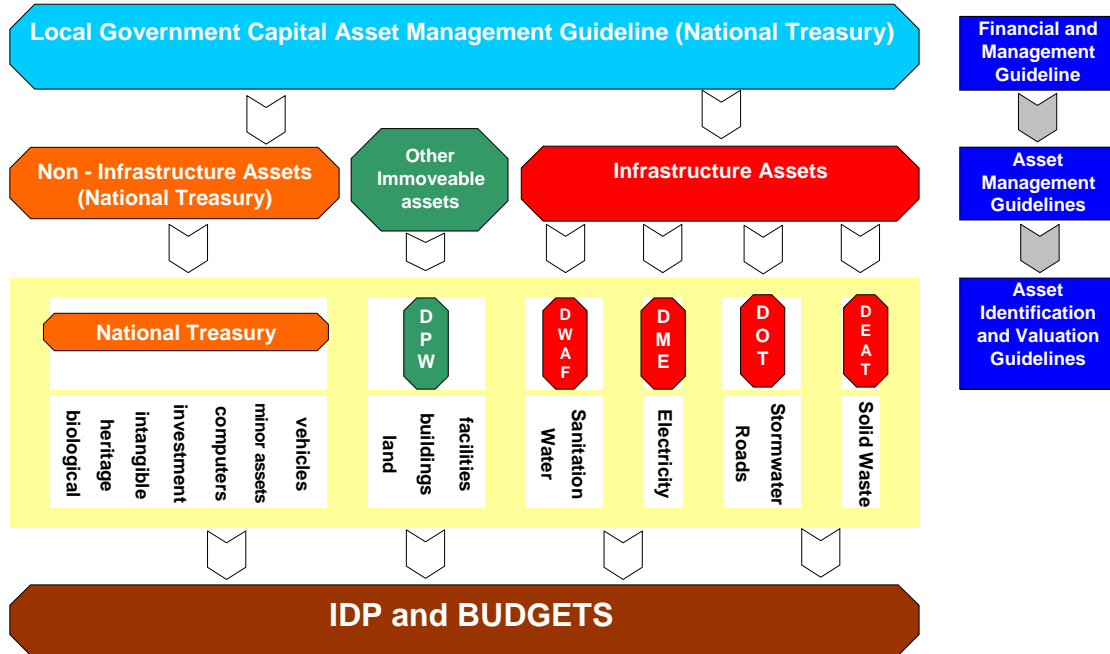
- The LGCAMG provides the financial and management framework as required by the MFMA and GRAP, including the broad principles of asset management.
- The DPLG guideline provides a framework for infrastructure assets.
- The Sector Guidelines should provide details on how to implement the principles contained in the NT and DPLG guides in each specific sector. For non-sector specific assets the LGCAMG should be consulted.

There is a link between strategic planning, capital budgets, operating budgets and asset management plans, which should inform the Integrated Development Plan (IDP) processes.

The following diagram outlines these relationships and highlights the specific areas and types of assets on which the key sector departments provide guidance. It also demonstrates that all asset management issues and their management are underpinned by the IDP and Budgets at the municipalities. Thus special



guidance, for example from DWAF, will need to be considered in developing IDP, asset management plans and budgets in addition to this guideline.



2.2 Coordination for successful implementation within the municipality

2.2.1 Critical success factors

The four “C’s” for the successful implementation of Asset Management in a municipality are:

1. A clear Catalyst for change,
2. A Champion for change,
3. An organisational Commitment to change, and
4. Close Cooperation between the CFO, finance staff, senior managers and operational managers involved in service delivery.

Catalyst for change

The catalyst (somebody or something that makes a change happen or brings about an event) is important, not necessarily for its significance, but rather because it is a trigger for the organisation to think carefully about asset management. Typical catalysts in this instance are (not necessarily in this order):



- the need to comply to legislation,
- the need to implement new accounting standards,
- a qualified audit opinion,
- failure of networks to deliver services,
- exponential growth straining existing networks, or
- new technology enabling increased ability to monitor assets.

A champion for change

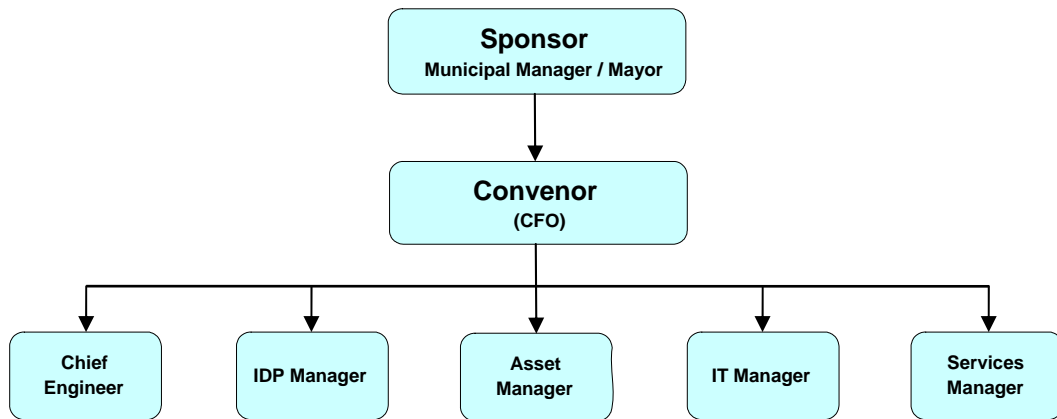
A champion of change is that person who pursues and promotes the issue far beyond the initial catalyst. This is the person who eventually elicits the organisational commitment to the need to implement changes to Asset Management. This type of leadership preferably comes from the municipal manager who is charged with responsibility for ensuring the municipality has asset registers, and overall responsibility for the management and performance of the assets in service.

Organisational commitment to change

Commitment should be from the mayor, councillors, municipal manager and other senior management (as well as senior and support staff). A Council Resolution will demonstrate (although not required) this commitment and lend support to the implementation process. It is suggested that the implementation process be driven through an asset management steering committee with regular reporting to senior management.

2.2.2 Typical asset management steering committee (AMSC)

The structure and composition of an Asset Management Steering Committee will be unique to each municipality due to the different needs in each municipality. The following is a suggested structure:



As a guide the AMSC should consist of an asset management sponsor (the Mayor or Municipal Manager), a convenor (CFO) and other members (amongst others the asset manager, the chief engineer, the IT manager, the service manager, IDP manager). A strong, high-level steering committee with top management leadership and, if possible, political participation is usually needed to guide, drive the changes and provide oversight of the implementation.

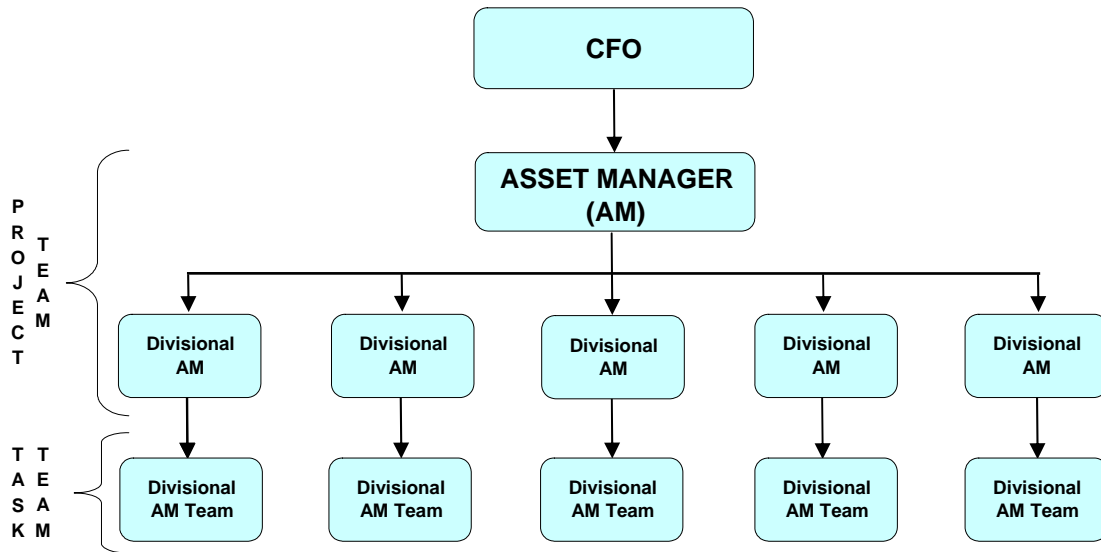
Typically the following structure (with related functions) will support the Asset Management Steering Committee:



There are some other good examples in the DPLG Guideline.



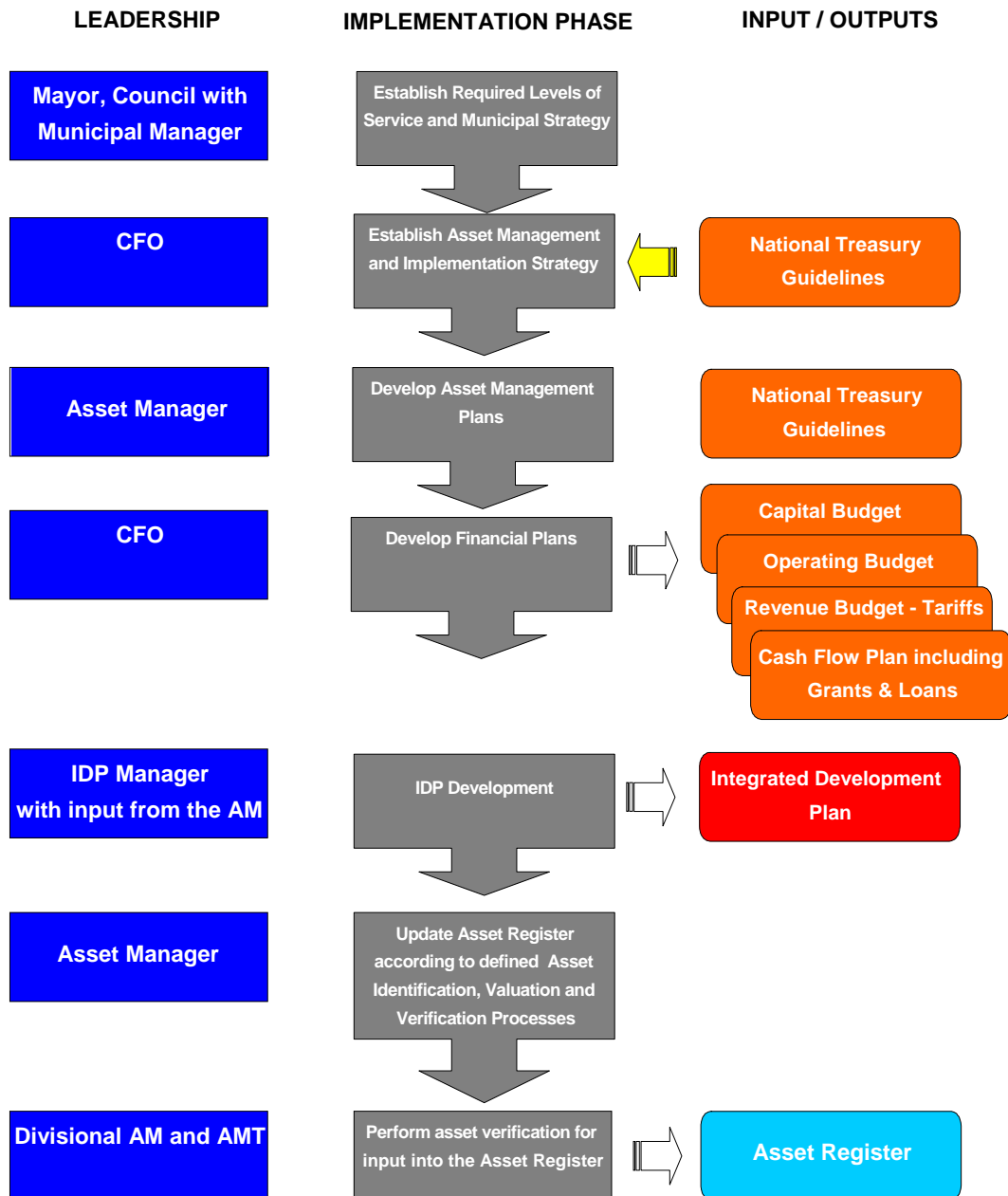
An example of what an asset management structure could look like:



The asset manager, as project leader, should have adequate project management skills to perform his/her functions.



2.2.3 Leadership required to implement asset management



The diagram above illustrates the leadership involvement and interactive approach needed successfully to implement asset management in a municipality.



3 ASSET MANAGEMENT

The goal of asset management is to achieve the required level of service in the most cost effective manner, which is achieved through management of the asset's life cycle.

3.1 Effective asset management

To be effective, asset management in municipalities should include the following:

- Service level needs, identified in the IDP process, drive asset management practices and decision-making;
- Asset management plans that are an integral part of the municipal planning process;
- Asset acquisition decisions that are based upon the evaluation of alternatives, including demand management and non-asset solutions;
- Asset acquisition proposals that include a full business case, including costs, benefits and risks across each phase of an asset's life cycle;
- Defined responsibility and accountability for performance, safe custody and use.
- Disposal decisions based upon an analysis of disposal options, designed to achieve the best possible return for the municipality and made in accordance with the provisions of the MFMA;
- Sound risk-based internal controls supporting all asset management practices.

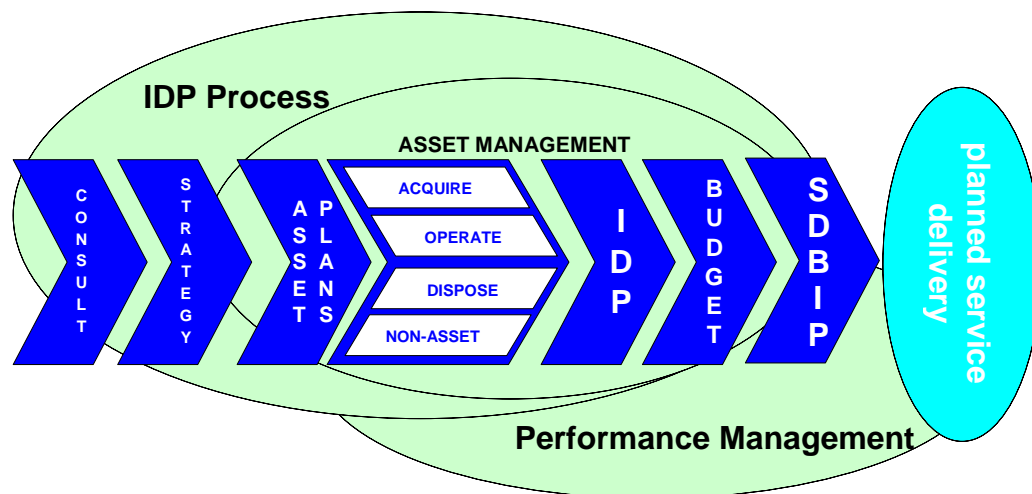
Effective asset management will:

- maximise the service potential of existing assets by ensuring that they are appropriately used; maintained, safeguarded and that risks are mitigated;
- optimise the life cycle costs of owning and using these assets by seeking cost-effective options throughout an asset's life cycle;
- reduce the demand for new assets through optimal use of existing assets and management of demand through the use of non-asset service delivery options; and
- establish clear lines of accountability and responsibility for performance.

3.2 Asset strategy

The municipality should adopt an integrated approach to asset management:

- taking the municipal strategy, converting that into an asset management strategy and producing plans based upon an analysis of service delivery options;
- formulating an asset management strategy consisting of detailed plans for acquisitions and replacements, operation and maintenance as well as disposals in terms of the municipality’s policies;
- informing the IDP (and revised IDP) and then the annual budget, using the detailed plans;
- funding each approved asset management plan appropriately through the budget;
- including in the Service Delivery and Budget Implementation Plan (SDBIP) the measurable objectives and targets of each asset management plan;
- reporting on the performance of assets as measured in terms of service delivery based upon an approved SDBIP, budget and IDP.



The diagram above reflects how the asset management function integrates with the IDP and performance management processes.

3.2.1 Asset management plans

The development of asset management plans is an interactive process that starts with the identification of service delivery needs and ends with an approved “multi-year” budget linked to the SDBIP based upon the most cost-effective method of delivering that service. During that process the asset manager should:



- consider the service-level requirements identified from the IDP development process;
- review the current levels of service provided from the relevant assets;
- conduct a “gap analysis” of the required vs. current service levels;
- identify a range of options to resolve that service-level gap;
- conduct a preliminary assessment of the feasibility of various options;
- develop a business case for the most feasible option or options. This business case should include:
 - the proposed service delivery option,
 - identified benefits and identified needs,
 - a full life-cycle-costs forecast,
 - credible revenue forecasts including other funding sources;
 - a risk assessment across the whole life cycle of each option, and
 - performance measures that can be used to assess the success of the options and implementation progress.

The asset manager will consult with other divisions in the development of the municipality’s asset management plans. For example they should:

- review any legislative issues with the municipal legal department;
- review any human resource issues with the human resource manager; and
- review other issues with any other relevant managers, e.g. Information Technology, CFO and Human Resources.

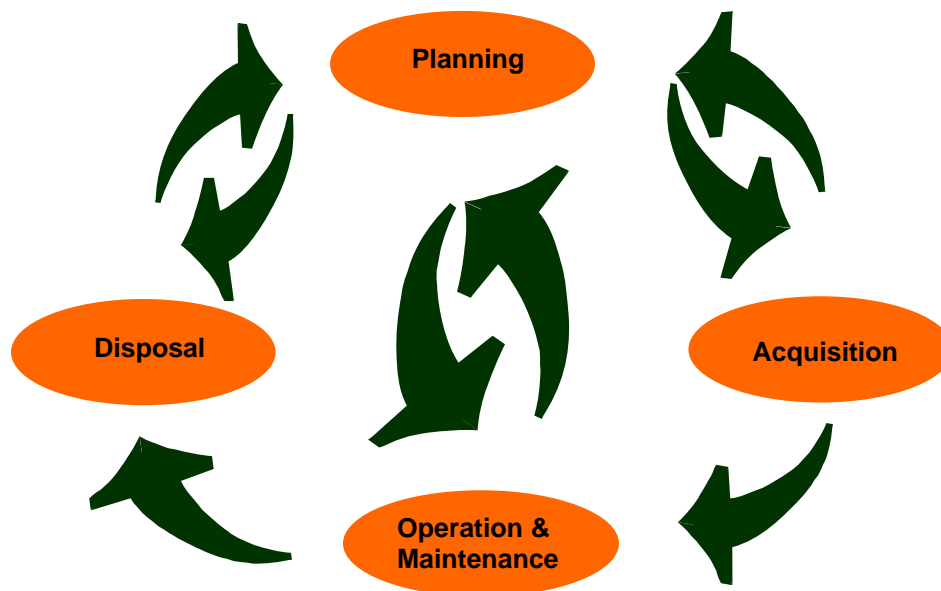
Asset management plans should also include asset maintenance plans to ensure provision in the budget for appropriate funding to guarantee that existing assets continue to perform at the required levels and standards of service.

3.3 Asset life cycle

The asset life-cycle is a key concept underpinning asset management. An asset life-cycle covers all phases of an asset’s life starting with planning, through its acquisition, operation, maintenance and eventual disposal. Management of these phases should be aligned to the municipality’s planning, budgeting, monitoring and reporting processes. In summary the phases are as follows:



- a) The **planning phase** deals with the planning for service delivery that drives the need for assets. This phase will include input into the IDP, budget and asset management plans. Various acquisition options should be considered during this phase.
- b) The **acquisition phase** deals with the purchase, construction or manufacture of new assets.
- c) The **operation and maintenance phase** deals with the operation of the assets, maintenance/refurbishment, enhancement/rehabilitation, depreciation and impairment. This phase includes activities of a capital and current nature.
- d) The **disposal phase** deals with the timing of and disposal of the assets including the disposal costs and specific requirements for the assets, e.g. dismantling costs, medical equipment legal requirements, etc.



The above diagram illustrates the interaction and constant updating of the life-cycle information throughout the life of an asset.

An asset's life-cycle is determined by its useful life to the municipality. This useful life is often shorter than its economic life. For example, a municipality may decide (as part of its asset management policy) to dispose of traffic police cars after five years because they have become too costly to maintain through extensive usage. However, such cars may continue to operate in another environment for many years.



3.3.1 Asset life-cycle costs

A clear understanding of asset life-cycle costs is crucial for the development of cost-effective asset management plans and options. Knowledge of these asset life-cycle costs is also a legislative requirement:

MFMA section 19(2)(a) and (b):

(2) Before approving a capital project in terms of subsection (1)(b), the council of a municipality must consider—

- a) the projected cost covering all financial years until the project is operational;
and
- b) the future operational costs and revenue on the project, including municipal tax and tariff implications.

MSA section 74 (2)(d), (e) and (i) on tariff policies:

(d) tariffs must reflect the costs reasonably associated with rendering the service, including capital, operating, maintenance, administration and replacement costs, and interest charges;

(e) tariffs must be set at levels that facilitate the financial sustainability of the service, taking into account subsidisation from sources other than the service concerned;

(i) the extent of subsidisation of tariffs for poor households and other categories of users should be fully disclosed.

The analysis of life-cycle costs should cover the four broad phases, thus covering the entire life of the asset, including any environmental rehabilitation at the end of its life.

This analysis will be based upon estimates and include all cash flows such as operation, maintenance, administration, capital, and financing costs. The budget should have a split between capital and operational costs including depreciation.

These are typical asset life-cycle costs:

Planning-phase costs – concept design costs, scientific studies, environmental impact studies and feasibility studies. These costs are usually incurred when



weighing up the different options, before deciding on the best option, and are excluded from the cost of an asset.

Acquisition-phase costs & revenues – special levies, purchase price / construction costs (labour, materials, and components), detailed design costs (not feasibility analysis), transportation costs, installation and commissioning cost, use of own assets in construction (limited to depreciation over duration of use), freight, legal fees, warehousing costs, initial consumables (e.g. initial set of tyres for a vehicle) and all other costs required to bring that asset to its proper working condition and location for intended use (excluding training on use of the new asset, should this be required).

Operation and maintenance-phase costs:

Operation - fuel or energy costs, operational labour, security costs, safety costs, training costs, performance monitoring costs, cleaning costs and consumables.

Maintenance - spare parts and repair labour.

Administration (asset specific) - insurance, rates and taxes, management fees, etc.

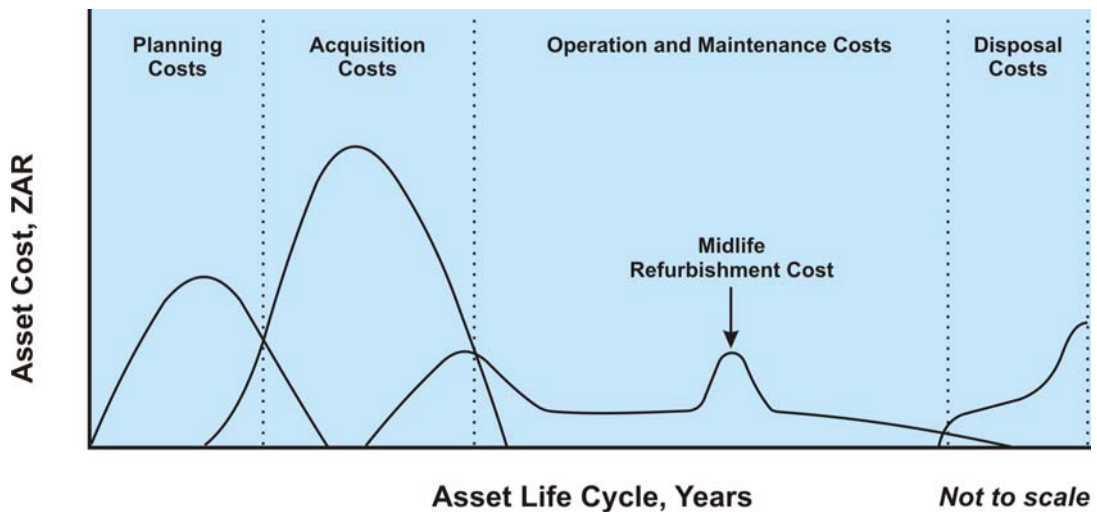
Rehabilitation and renewal - upgrade costs, modification costs if this improves asset life (capital), re-training costs (current), etc.

Asset-related receipts – tariffs, rates and equitable share (only to the extent that it relates to this asset acquisition).

Disposal-phase costs - disposal costs (like auctioneer fees, etc.), storage costs, environmental rehabilitation costs, decommissioning costs, demolition costs, etc.



The picture below illustrates the above:



3.3.2 Planning and budgeting phase

Municipalities need to plan for the level of services they need and how they will use the available funds to maintain and expand those services. This should include service delivery options and funding alternatives.

The planning phase determines the future direction of the municipality. It is also the phase in which Councillors and the community have the biggest impact on the activities of the municipality in terms of delivering services. The IDP is adopted by Council through an extensive community consultation process and is the principle strategic planning instrument that guides, informs and binds the activities of the municipality. NT has emphasised that the IDP and budget process need to be linked in a single process. Similarly, the development of asset management plans, the SDBIP and performance agreements are all linked to and driven by the IDP process and documented.

The MSA, section 25, defines the IDP as “a single, inclusive and strategic plan for the development of the municipality which –

- (a) links, integrates and co-ordinates plans;
- (b) aligns the resources and capacity of the municipality with implementation of the plan;
- (c) forms the policy framework and general basis on which budgets must be based; ...”



Core components of the IDP include (MSA section 26):

- a) the municipality's council's vision for the long-term development of the municipality;
- b) an assessment of the existing level of development with identification of communities without access to basic services;
- c) council's development priorities and objectives;
- d) council's development strategies, aligned to national and provincial sectoral plans;
- e) council's operational strategies;
- f) a financial plan including budget projections for at least the next three years;
- g) key performance indicators and performance targets.

The development of the IDP requires clear answers to the following questions:

- What existing assets do you have and where are they? (Asset Registers)
- What are the existing assets worth? (Valuation)
- What are their condition and their expected remaining useful life? (Condition Assessments)
- What is the expected or required level of service? (IDP development)
- How can that level of service be achieved? (Asset Management and Operational Plans)
- What additional assets do you require? (GAP analysis)
- How much will that level of service cost and when or how can we fund it? (Multi-year Capital and Operating Budgets)
- How can we ensure that level of service is "financially sustainable" (Fiscal Policy, Short to Long-Term Financial Plans)
- How will we manage and monitor the delivery of that level of service? (SDBIP, Performance Management System and Performance Agreements)

3.3.2.1 Funding of the acquisition

The municipal manager and CFO's funding strategies should optimise the municipality's ability to achieve its strategic objectives as stated in the integrated development plan. Loans to acquire assets should not be longer than the life of the assets they are used to acquire.



The funding strategy should consider available sources of finance such as operating surpluses, cash-backed reserves, loans, grants, and cash donations. This should be part of a long-term cash flow forecast.

Loan finance option

A municipality should ensure that a loan satisfies the requirements of legislation on incurring debt. In particular, municipalities should ensure that long-term debt is:

- incurred only for the purposes of capital expenditure for the purpose of achieving the objectives stated in section 152 of the Constitution (MFMA S46),
- incurred in line with its capital budget (MFMA S19 and S46(2)),
- is incurred only after the anticipated debt repayment schedule has been submitted to council (MFMA S46(3)(b)(i)),
- included in the liabilities register, and
- satisfies the other requirements of sections 19, 46 and 63 of the MFMA, the MSA and the Constitution.

The municipality should have a long-term financial plan to repay the loan, pay the interest and manage the overall borrowings of the municipality. This means the municipality should generate surpluses above normal operation and maintenance costs which are sufficient to pay for these additional loan-related payments. Revenues generated from the new and/or improved services, through new and maintained assets, could increase the annual cash available in the budget, which can be used to supplement asset financing from own resources

Refinancing loans

Circumstances may arise that require a municipality to refinance a loan or loans. There is a legislative need to link loan-funding sources to assets, that is to comply with MFMA Section 46 (5) on refinancing loans:

“A municipality may borrow money for the purpose of re-financing existing long-term debt, provided that—



(b) the re-financing does not extend the term of the debt beyond the useful life of the property, plant or equipment for which the money was originally borrowed;”

A register of loans should indicate the capital assets for which the loan was raised. The asset register should reflect the asset and the corresponding loan (e.g. cross reference to the loan register) to ensure that, when the asset is disposed of, the corresponding liability is settled.

Where a municipality raises a loan or a short-term bond against a capital expenditure programme (many capital assets) and then wants to refinance that loan, it may prove difficult to allocate the loan to specific assets. This situation can be dealt with as follows:

1. Match the value of the loan against the value of assets connected to the project.
2. Apply the loan against the value of specific long-life assets.
3. Where the loan is to be refinanced, the municipality has specific long-life assets related to the loan against which it can be refinanced.
4. The short-life assets would then be financed/allocated through other sources, e.g. internal funds or grants.

Loans for new assets/projects should be raised against specific assets related to the programme or project to avoid such difficulties.

3.3.2.2 Multi-year capital projects and projected rollovers

Multi-year capital projects will require funding over the period of the project.

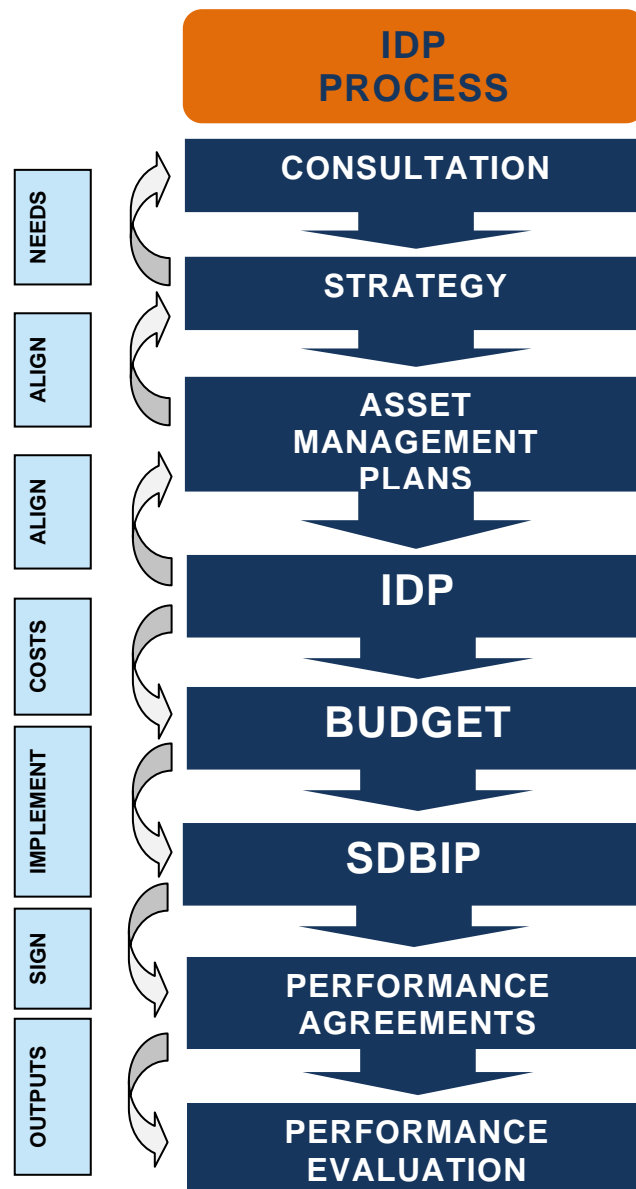
MFMA 16 (3) allows for the appropriation of money for capital expenditure for a period not exceeding three financial years, provided a separate appropriation is made for each of those financial years.

Although the MFMA requires planning for three financial years of the project, the municipality should plan for the funding needed for every financial year of the project to ensure its financial sustainability.



Situations will arise where capital appropriations are unable to be spent during the allocated financial year. A municipality can either include the projected capital roll-overs as part of a municipal adjustment budget (MFMA 28 (2) (e)) or provide for an adjusted capital appropriation as part of the next annual budget. This also facilitates long-term contracts with suppliers to enable a smooth flow of work over the three or more years of construction.

The chart below outlines key aspects of the planning processes. Although it shows a single flow downwards, the process is an interactive one, and each of the elements may generate some further inputs to the preceding elements. For example, the results of the asset-management life-cycle plans are an important input to the first two steps in the chart.





It is recommended that asset management plans be developed by asset managers in consultation with senior management in the case of all the asset classes.

Life-cycle planning should also be done for each individual asset. This information will feed into the municipality's acquisition, operation and maintenance, as well as disposal, plans.

3.3.3 Acquisition phase

The acquisition phase covers a number of financial steps including:

- Pre-Acquisition Planning
- Approval to Acquire
- Funding of the acquisition
- Supply-chain management process
- Physical Receipting and Management.

3.3.3.1 Pre-acquisition planning

During this phase various options for acquisition or alternatives to asset ownership should be considered by the performance of cost-benefit analyses for all options, taking into account the period for which the asset is required for use by the municipality.

Methods of acquisition

There are various methods of acquisition namely:

- Asset purchasing (Buy)
 - Land, for the purposes of this publication, encompasses both improved and unimproved land. It generally also includes all improvements of a permanent nature, for example levelling a piece of land. Legislation governing the acquisition of land by entities for public purposes should be observed. Generally, an entity acquires land either by agreement or by compulsory acquisition:
 - ♦ Purchase by agreement can be achieved by negotiation and entering into a common law contract of sale.



- ◆ Compulsory acquisition is where the acquiring entity may be empowered under legislation to acquire the land. If agreement on the compensation to be paid cannot be reached, the courts determine the matter.
- The acquisition by municipalities of assets other than land and those that are constructed is governed by the MFMA and by relevant policies and guidelines applicable to the municipalities.

When buying land with improvements such as buildings, the cost of the land and the buildings should be separated in the asset register and the ledger for reporting purposes.

- Asset construction (Build)
 - Choosing an appropriate contractual method is fundamental to the feasibility, development and ultimate success of the procurement. Municipalities are responsible for choosing the most appropriate method on a project-by-project basis and for identifying, assessing and allocating potential risks in order to optimise investment return. The method used to acquire assets should enable:
 - ◆ appropriate allocation of risks and obligations to relevant parties;
 - ◆ definition of the respective roles of the various parties involved;
 - ◆ definition of the required outcomes of the acquisition process;
 - ◆ effective project management by the municipality to ensure that contractual stipulations and the budget are met; and
 - ◆ the receipt and physical checking of progress reports before their authorisation.
 - The choice of method is made by considering costs, financial benefits, funding options, risks, delivery times and the period for which the asset is needed.
 - Lump-sum contracts involve the design and documentation of the project. Tenders are then invited and a contractor appointed to construct the works, as documented, in return for an agreed lump-sum payment, paid as the work progresses. A project manager undertakes to manage the project for delivery within the specified time and to



meet specified cost and quality targets. The project manager may be an architect or other building professional.

- A design-and-construct contract involves a single supplier or contractor undertaking both the design and construction processes. The contractor engages consultants to design and document the project, generally with the close involvement of the customer. This type of contract may include a warranted or guaranteed maximum price, subject to the allocation of risks.
- The build-own-operate-transfer (BOOT) process involves the private construction of a public asset at the expense of the private owner in return for the right to operate the facility and charge users a fee. At the end of the contract period, the facility reverts to the State i.e. Public Private Partnerships (PPPs). This process can be modified to suit particular needs (e.g. build-own-transfer), depending on the requirements for ownership and operation.

▪ **Using Non-Asset Service-Delivery Options**

Municipalities should consider non-asset based service-delivery options, such as:

- Managing Demand for that service, e.g. user-charging regimes
- Redesign Service Delivery Options, e.g. use mobile phones instead of Radio Phones.
- Managing Utilisation / Waste of that Service, e.g. Community Education
- Consider External Service Provision including:
 - ♦ leasing (Finance and operating);
 - ♦ Public Private Partnerships (PPP); and
 - ♦ outsourcing.

Decision to lease or buy

- The decision to lease or buy an asset is where the market can provide generic assets to meet a municipality's service needs.
- Where an asset is leased it is necessary to record the details in an appropriate register. Additional details, which should also be recorded, include:



- ◆ lease start and completion dates;
 - ◆ first-instalment date;
 - ◆ asset-fair value;
 - ◆ implicit interest rate; and
 - ◆ lease payments.
- Leases have a built-in interest cost which should be considered when evaluating whether to lease or buy (cash) an asset. Information in the register should be reviewed annually to confirm that the decision remains the most economical one.
 - The advantages of leasing include:
 - ◆ increased flexibility to change 'asset solutions' (with an operating lease);
 - ◆ reduced need for large capital outlays; and
 - ◆ isolation from short -term fluctuations in market supply and values.
 - Disadvantages can include:
 - ◆ penalty clauses for the early termination of leases;
 - ◆ higher implicit interest costs in leases compared to cost of funds available to the municipality; and
 - ◆ dependence on the market to supply assets leading to long-term exposure to market risk.

Decision to buy or enter into a PPP

There are regulations, legislation and NT guidelines covering PPPs. For accounting implications, the municipality should consult with the NT Office of the Accountant-General (OAG) before entering into the PPP arrangement. Municipalities should refer to these guidelines or ask the PPP unit in NT for assistance.

Guidance includes:

A municipality may enter into a PPP only if it can demonstrate that the agreement will:

- provide value for money;
- be financially sustainable for the municipality; and
- transfer appropriate technical, operational and financial risk to the private party.



Furthermore, the municipality should undertake a feasibility study broadly including:

- the strategic and operational benefits of the PPP agreement for the municipality;
- the specific description of the extent to which the function, both legally and by nature, can be performed by a private party in terms of a PPP agreement and what other forms of PPP agreement were considered;
- explanation of the municipality's capacity effectively to enforce the agreement, including monitoring and regulating implementation and performance of the agreement.

Further guidance can be found in the MSA, chapter 8, part 2 and the NT PPP website.

Before a decision is made to acquire an asset, the acquisition plans that have been prepared should be checked to ensure that budget planning has been done.

Before a capital project is included in the budget for approval, the asset manager should demonstrate that he/she has considered:

- the preliminary or conceptual design and specification of the asset;
- the projected cost over all the financial years until the project is operational;
- the future operational costs and revenue on the project, including tax and tariff implications;
- the financial sustainability of the project over its operational life, including revenue generation and subsidisation requirements;
- all preliminary costing-projected timeframes, cash flows and other requirements; and
- alternatives to this capital purchase.

The CFO should ensure the asset manager receives all reasonable assistance, guidance and explanations to enable him/her to achieve the planning requirements.



Closer to the actual acquisition date, the initial estimates and the preferred options should be re-assessed, and, if necessary, an updated business case prepared for the approval of the acquisition.

3.3.3.2 Approval to acquire capital assets

The time frame for the acquisition process/project start date, and the timing and amount of required capital outlays should be considered and included in the IDP and annual medium term budgets at a time that takes account of acquisition lead times.

Expenditure on a capital project will be approved through the budget process. Part of this approval process should be the tabling, with council, of the business case (including life-cycle costs and revenues) associated with each option as well as the tariff implications. This business case should also include the risks of doing nothing.

Once the acquisition has been approved, the actual purchase will be done through the supply-chain unit.

3.3.4 Operation and maintenance phase

3.3.4.1 Accountability for capital assets

Accountability for the operation and maintenance of capital assets is delegated from the municipal manager, through the senior managers, to the asset manager. The asset manager is accountable for ensuring that municipal resources assigned to him/her are utilised effectively, efficiently, economically and transparently. This would include:

- complying with systems of management and internal controls established by the municipality;
- preventing inappropriate losses;
- appropriately managing, safeguarding and maintaining assigned assets; and
- providing all asset-related information as and when required.



The asset manager will delegate custodianship of assets to specific users. The custodians will be required to perform functions assigned to the asset manager in respect of their specific assets.

3.3.4.2 Reporting on emerging issues

Each asset custodian should report to the asset manager, who will report to the appropriate senior manager; and senior managers should report to the municipal manager on the execution of their delegated responsibilities, including any issues that will significantly impede the capability of the assets to provide the required level of service or economic benefit. One of these issues will be the adequacy of the maintenance, operation and safeguarding of assigned assets.

3.3.4.3 Operation and maintenance policies and plans

The asset manager must have a thorough understanding of the operational policies and budgets required to maintain assigned assets to the required level of performance. The asset manager will need to participate in the development of asset-management policies and strategies and to provide budget input that optimises the useful lives of their assets.

The selection of a maintenance strategy involves consideration of the appropriate mix of procedures and the capacity to undertake minor modifications and enhancements when required. It is unlikely that any one approach will be suitable. The main approaches are:

- corrective - no maintenance is undertaken unless, or until, the asset no longer functions to the required standard or has broken down; and
- preventative - programmed maintenance is undertaken to reduce the likelihood of failure and to keep the asset operating at an acceptable level.

For some specialised assets the technical requirements for scheduled maintenance are provided by the manufacturer e.g. for electricity generators. These schedules need to be taken into account when planning for the long and medium term and appropriate budget provision made to ensure adherence to schedules. Schedules are based on normal usage and specified fuel standards as well as risk assessments in relation to the assets.



Inappropriate or excessive use over extended periods may increase the risk of increased maintenance interventions, down time and reduction in the life of the asset.

An important consideration is the nature of the asset itself. Certain categories of assets require little or no regular maintenance (for example furniture and fittings). It is valid to exclude such assets from a formal maintenance programme and to rely instead on regular, periodic inspection of condition. This could be undertaken in conjunction with the physical verification programme.

Risk is also an important consideration in determining appropriate maintenance policies. Risks associated with the operation of the asset in terms of occupational health and safety standards, as well as consequence of failure, need to be considered.

A maintenance strategy is a comprehensive plan that:

- defines the asset, the performance required of it, and the level to which it is to be maintained;
- identifies the risks associated with the chosen strategy in terms of service delivery in the event of asset failure;
- describes the systems (not specifically IT) and procedures to be used to plan and manage the maintenance work;
- specifies the types of maintenance to be carried out (i.e. in-house or outsourced), and why;
- nominates the means of resourcing and implementing maintenance;
- indicates any requirements for in-house spare parts and any specialist equipment needed to maintain certain assets; and
- outlines the projected costs of routine (and corrective/preventive) maintenance and forecasts major replacements for the next 5–10 years, depending on the type of asset.

In developing a maintenance strategy, two considerations are particularly important: the level of maintenance required for the asset and maintenance priorities.



Level of maintenance

The level of maintenance required for an asset, and the performance expected of it, should be clearly established. The level set should:

- be consistent with the role that the asset will play in the delivery of services, relative to other like assets in the portfolio of the entity;
- reflect obligations for compliance with statutory requirements in terms of occupational health and safety, fire, environmental management and the like;
- be realistically attainable, given the age, condition and expected life of the asset;
- be capable of being achieved within planned resource availability; and
- be agreed upon with the users of the asset.

The level of maintenance should specify the extent to which the performance of the asset is operationally critical and to which visual appearance is important. It should also stipulate the necessary response times in the event of failure.

Maintenance priorities

Higher-priority maintenance tasks are identified in the maintenance strategy. This will enable maintenance efforts to be focused on these areas if resources fall below the planned levels.

Some operational policies will require input in specialist areas, such as from engineers for infrastructure, technology managers for computer equipment, etc. Some of the budgetary requirements will be determined by asset management policies. For example, if the policy is for computer equipment to be replaced every three years, then this should be provided for in the budget in the third year of operation.

The usefulness of an asset depends on how effectively it meets its purpose. The chosen operation and maintenance policies of a municipality have a direct bearing on the useful life of an asset. The correct application and implementation of the policies will also impact on the maintenance of the useful life of the assets. The useful life of assets will be reduced if they are poorly operated and maintained.



Deferring maintenance on an asset is not a healthy practice as it means that the asset will not reach the estimated useful life envisaged on acquisition. In the long run, the cost to the entity in terms of lost economic benefits or backlog in service delivery will exceed the perceived 'saving' in maintenance costs. The cumulative effect of deferred maintenance should be assessed, and the impact on the budget considered, as this will have a significant bearing on the formulation of the asset plans and budgets that are input into the IDP. If this is current practice in a given municipality, the municipality should implement a plan for reducing the backlog over the shortest possible period and regularly report progress achieved in relation to this plan to senior management.

Once the asset policy has been formulated, operation and maintenance plans should be developed to give effect to the policy. Operation and maintenance plans define the approaches to be used, and what needs to be done, to optimise performance and asset life. The objective of operation and maintenance plans is to ensure that assets remain appropriate to programme requirements; are efficiently utilised; and are maintained in the condition necessary to support programme delivery at the lowest possible long-term cost.

The following is a checklist of what should at least be covered in the operation and maintenance plans:

Operation plan:

- resources required to operate and maintain assets;
- responsibility for, control of, access to, and security of the asset (Logistics Management);
- operating policies (i.e. working hours, security, cleaning, energy management and the like);
- the level and standard of performance required of the asset;
- arrangements for collecting, monitoring and reporting performance data;
- training staff in use of the asset; and
- estimates of operating costs.



Maintenance plan:

- definition of maintenance standards;
- allowance for the rectification of existing defects;
- description of the work to be carried out; and
- forecast of the necessary maintenance, major repairs and preventative maintenance expenditure for the planning period.

3.3.4.4 Maintenance decisions

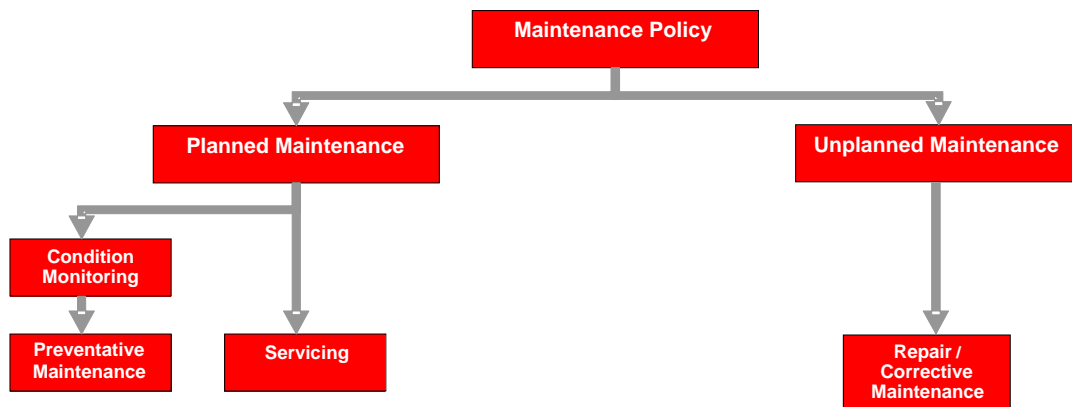
A planned approach to maintenance will ensure that the delivery of maintenance services, such as routine inspections, and servicing are undertaken in a manner which minimises disruption to the users of the asset and ensures that maintenance resources are used in the most cost-effective manner.

Planning for asset maintenance enables targeted action to be taken in a timely and cost-effective manner. For many types of assets, this may depend on the regularity and appropriateness of its maintenance. Regular maintenance may also help to preserve an asset's value.

As a first step to planning, the entity must determine which of its assets need to be maintained (i.e. prioritisation in terms of service delivery within a programme). By recognising the decline in asset values through use and obsolescence, management is encouraged to consider the costs of holding and using assets. Under-utilisation will increase the unit cost of programme delivery and may prompt the purchase of new assets when they are not required. Over-utilisation can have adverse effects in terms of deterioration in asset performance and condition, shortening productive life and increasing recurring operating and maintenance costs. Through the above process, management is able to manage those costs, and to make informed decisions, such as outsourcing a service.



The above is illustratively explained in the following figure:



3.3.5 Disposal phase

The MFMA (section 14 & 90) and the Municipal Supply Chain Management Regulation no. 27636 have specific requirements regarding the disposal of capital assets. Specifically:

- A municipality may not... “permanently dispose of a capital asset needed to provide the minimum level of basic municipal services”.
- Where a municipal council has decided that a specific asset is not needed to provide the minimum level of basic services, a transfer of ownership of an asset must be fair, equitable, transparent, competitive and consistent with the municipality’s supply chain management policy.

The processes and rules for the transfer of a capital asset to another municipality, municipal entity or national/provincial organ of state are governed by an MFMA regulation namely: “the Local Government: Municipal Asset Transfer Regulations”.

Where assets have been identified as under-performing, or no longer functionally suited for basic service-delivery needs, consideration should be given to the possible alternatives to disposal.

A factor to consider is whether utilisation can be increased (for example by adapting the asset to another function or using it in another programme). For assets such as property or large IT installations, consideration could be given to the letting of surplus capacity to other entities.



Enhancement/rehabilitation/upgrade of the asset may also be viable. The cost-benefit of such alternatives should be included in the disposal strategy.

Reasonable grounds for determining that a capital asset is not required for the provision of the minimum level of basic municipal services may include:

- The asset was acquired specifically for resale or distribution, e.g. investment property or stands held for distribution
- The asset is impaired (in respect of which the asset custodian can provide evidence).
- The municipality no longer performs the function for which the asset was purchased, e.g. the case of a clinic where the province has taken over that healthcare function.
- It is an immovable asset no longer located close to where the service is required, e.g. a taxi rank on a disused road.
- The asset has been replaced.
- The asset no longer performs the required level of service.

Processes should be in place to ensure that:

- under-utilised and under-performing assets are identified as part of a regular, systematic review process;
- the reasons for under-utilisation or poor performance are critically examined, and corrective action taken to remedy the situation or a decision to dispose of the asset is made;
- the analysis of disposal methods takes into consideration the potential market or other intrinsic values; the location and volume of assets to be disposed of; the ability to support other government programmes; and environmental implications;
- regular evaluation of disposal performance is undertaken.

To ensure that a disposal is fair, equitable, transparent and competitive, the following should happen:

- The supply chain management policy should state the mechanism for determining the market value for different types of assets.
- The process should be open to the public and public scrutiny.
- Consideration should be given to the fair market value of the asset, and to the economic and community value to be received in exchange for the asset.



- Reasonable efforts should be made to ensure that an appropriately competitive process for disposal is adopted.

Council or the municipal manager (where delegated) will need to know what the expected market price is in order to demonstrate that it has considered the market value of that asset.

Methods of disposal

There are various methods of disposal. Different disposal methods will be needed for different types of assets. Before deciding on a particular disposal method, the following should be considered:

- the nature of the asset (i.e. a specialised asset or a common item);
- its potential market value;
- other intrinsic value of the asset (i.e. cultural/heritage aspects, etc.);
- its location (with respect to its transportation or access);
- its volume;
- its trade-in price;
- its ability to support wider Government programmes;
- environmental considerations;
- market conditions; and
- the asset's life.

Appropriate means of disposal may include:

- public auction;
- public tender (competitive bidding);
- transfer to another institution;
- sale to another institution;
- letting to another institution;
- trade-in; and
- controlled dumping (for items that have a low value or are unhygienic).



3.3.5.1 Assessment of performance/post-disposal review

The whole-of-life approach to asset management and effective strategic asset planning requires that the outcomes and outputs of each phase of the asset life cycle become inputs to the next planning cycle.

The actual timing and proceeds of the disposal should be compared with the standard established for that specific class in the municipality's accounting policies. This makes it possible to confirm that the useful life, estimated proceeds, and therefore the depreciation rates used, are valid. It also provides the opportunity to identify reasons why assets are routinely not meeting the service life expectations or their estimated proceeds on disposal.

A higher-level review also needs to be undertaken at regular intervals to ensure that the Government's disposal goals and aims are being met.

Better practice suggests that, in addition to undertaking the cost-benefit analysis of disposal methods, asset managers be required to compare the actual life on disposal with the expected useful life and to explain significant variations.

The municipality must ensure that it implements a proper system of internal controls over disposals to avoid the risk of theft or misappropriation of these assets while waiting for disposal processes to be initiated.



4 GOVERNANCE AND INTERNAL CONTROLS

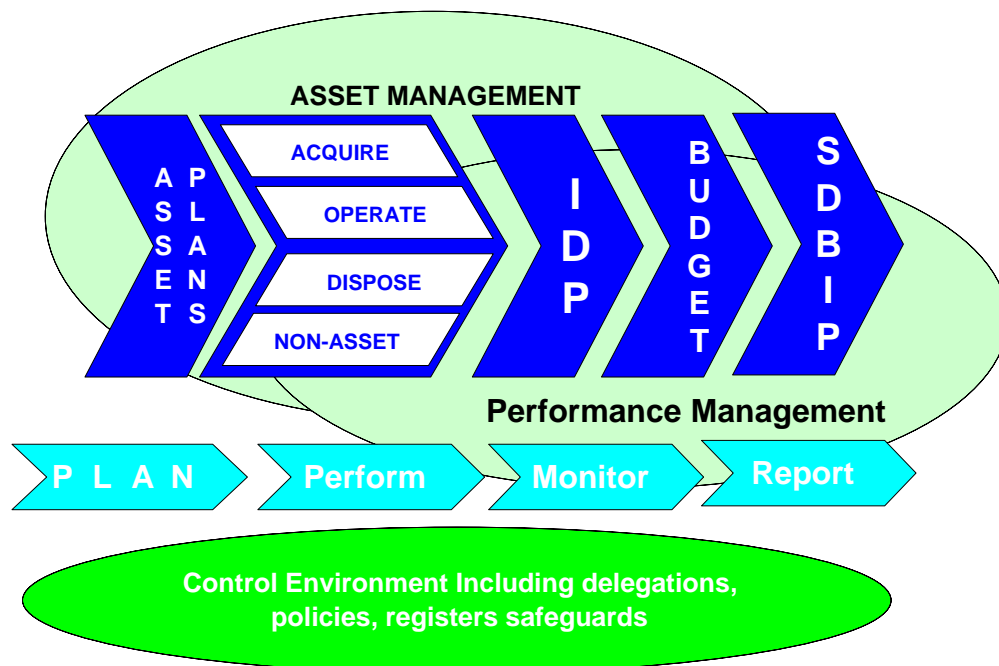
The control structure within a municipality in relation to asset management is an essential element of good corporate governance and is a necessary precursor to effective implementation of asset management principles.

Internal controls are the systems, processes and procedures established within an entity to ensure that management's plans and intentions are implemented.

The MFMA views proper internal controls from its wider perspective of “sound and sustainable” financial management. In other words, resources are seen to be “utilised effectively, efficiently, economically and transparently” or “maintained to the extent necessary”. Therefore the control environment should extend across the whole asset management process.

There are four basic principles for governance over the management of assets:

- Systems of Delegations and Accountability
- Safeguarding and Maintaining
- Planning and Budgeting
- Monitoring and Reporting.



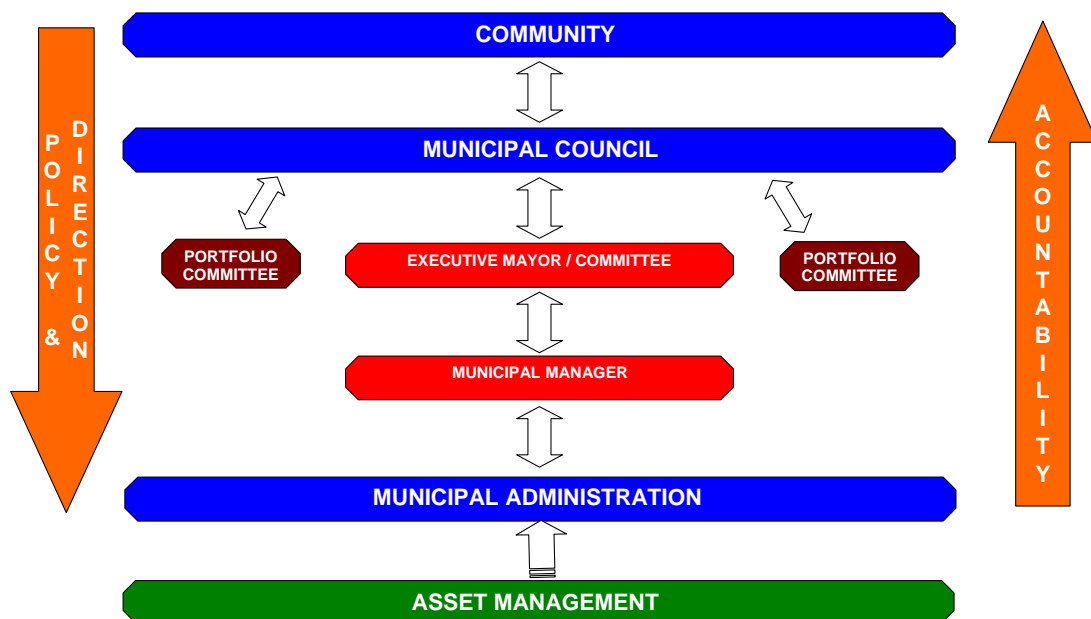


4.1 System of delegation and accountability

4.1.1 Systems of delegation required

Municipalities need clear and up-to-date systems of delegations and accountability within the administration, and between the administration and municipal council. The council is ultimately accountable to the wider community.

There needs to be clear monitoring and reporting lines between asset managers, senior managers, municipal manager, executive mayor and municipal council.



The above diagram gives the overall accountability framework.

4.1.2 Principles of delegation

The municipal manager should delegate the responsibilities (such as asset management) to other officials as envisaged in S79 of the MFMA:

“79. (1) The accounting officer (Municipal Manager) of a municipality—
(a) must, for the proper application of this Act in the municipality’s administration, develop an appropriate system of delegation that will both maximise administrative and operational efficiency and provide adequate checks and balances in the municipality’s financial administration”



The principles of delegation are defined in the MSA, chapter 7 part 3 (sections 59 to 61). In brief these principles are:

- The municipality should have a system of delegation that
 - maximises administrative and operation efficiency;
 - provides adequate checks and balances.
- A delegation should not conflict with the Constitution or any other law, regulation or Council approved policy.
- A delegation should be in writing under signature of the delegating authority.
- A delegation may be subject to any limitation, condition and directions the delegating authority may impose.
- A delegation may at any time be withdrawn by the delegating authority in writing.
- A delegation may include the authority to sub-delegate a delegated power.
- A delegation does not divest the delegating authority of the responsibility concerning the exercise of the power.
- Delegations should be reviewed regularly.
- All delegates should report to the delegating authority, at such intervals as the delegating authority may require, on decisions taken under a delegated or sub-delegated power or duty since the previous report.

The actual details of a delegation policy will depend upon the specific organisation of a municipality.

4.1.2.1 Typical delegated responsibilities and accountabilities

Typically, a delegation policy concerning assets will allocate the following types of responsibilities:

The Municipal Manager is responsible for the management of the assets of the municipality, including the safeguarding and the maintenance of those assets.



The municipal manager should ensure that:

- 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 generally recognised accounting practice;
- the municipality has and maintains a system of internal control of assets, including an asset register; and
- senior managers and their teams comply with this policy.

The Chief Finance Officer is responsible to the municipal manager for ensuring that the financial investment in the municipality's assets is safeguarded and maintained.

The CFO, as one of the senior managers of the municipality, should also ensure, in exercising his/her financial management responsibilities, that:

- appropriate systems of financial management and internal control are established and carried out diligently;
- the financial and other resources of the municipality are utilised effectively, efficiently, economically and transparently;
- any unauthorised, irregular, fruitless or wasteful expenditure and losses resulting from criminal or negligent conduct are prevented;
- all revenue due to the municipality is collected, for example rental income relating to assets.
- the systems, processes and registers required to substantiate the financial values of the municipality's assets are maintained to standards sufficient to satisfy the requirements of the auditor-general.
- financial processes are established and maintained to ensure that the municipality's financial resources are optimally utilised through appropriate asset plans, budgeting, purchasing, maintenance and disposal decisions.
- the municipal manager is appropriately advised on the exercise of powers and duties pertaining to the financial administration of assets;
- the senior managers and senior management teams are appropriately advised on the exercise of their powers and duties pertaining to the financial administration of assets;
- this policy and any supporting procedures or guidelines are established, maintained and effectively communicated.



The CFO may delegate or otherwise assign responsibility for performing these functions but he/she will remain accountable for ensuring these activities are performed. It is strongly recommend that the “asset register” as prescribed by the MFMA should be under the responsibility of the CFO.

Asset managers should ensure that:

- appropriate systems of physical management and control are established and carried out for all assets;
- the municipal resources assigned to them are utilised effectively, efficiently, economically and transparently;
- proper accounting processes and procedures are implemented in conformity with the municipal financial policies and the MFMA to produce reliable data for inclusion in the municipal asset register;
- any unauthorised, irregular, fruitless or wasteful utilisation and losses resulting from criminal or negligent conduct are prevented;
- the asset management systems, processes and controls can provide an accurate, reliable and up-to-date account of assets under their control;
- they are able to manage the asset plans, budgets, purchasing, maintenance and disposal decisions and justify that they optimally achieve the municipality’s strategic objectives;
- manage the asset life-cycle transactions to ensure that they comply with the plans and legislative and municipal requirements.

The asset managers may delegate or otherwise assign responsibility for performing these functions, but they will remain accountable for ensuring that these activities are performed.

4.1.3 Asset management policies

It is recommended that a suite of policies covering asset management be developed to facilitate internal control of the entire asset management function.



This suite of policies is dependant upon organisational circumstances. These policies would cover the following:

- Delegations Policy
- Supply Chain Management Policy
- Risk Management Policy
- Strategic Planning and IDP Policy
- Budget Policy
- Inventory Management Policy
- Expenditure Management Policy
- Revenue and Tariff Policy
- Treasury and Cash Management Policy
- Financial Management Policy
- Internal Audit Policy
- Asset Management Policy (all assets).

The capital asset management policy should cover the asset life-cycle management processes and procedures, including the accounting policy.

The following is a checklist of the broad issues to deal with in the capital asset management policy:

- authority, purpose and scope;
- asset definition;
- asset categories (classes);
- single asset versus component approach (segmentation);
- asset valuation (cost, contributed or donated assets, grants or donations, etc.);
- capitalisation policies (buildings i.e. more than one building on a land parcel or one building on several land parcels), library books (i.e. encyclopaedia set or each book separately, etc.);
- capitalisation thresholds;
- capitalisation of subsequent costs;
- enhancements (rehabilitation) versus maintenance;
- depreciation methodology and rates;
- reviews of estimated useful life and write-down for impairment;
- capital leases (finance leases);



- asset registers (content, maintenance of the register – updating, physical verification, register content (periodic));
- control (asset base, maintaining records and documentation);
- construction work-in-progress (when to start capitalising, and when to stop capitalising and start depreciating);
- surplus assets;
- asset disposal (sale, abandonment, demolition, trade-in);
- risk management, health and safety issues and environmental issues.

The above list is not exhaustive. Depending on services, other policies and procedures may have to be included in the capital asset management policy to ensure proper recording and control.

Single-Asset or Component Approach

Determining whether to use a single-asset or a component approach for the different classes of assets should be based on what it costs to compile the information versus the value it has to management. The approach taken does not have to be consistent across all classes of assets. For example, motor vehicles could be viewed as single assets whereas, in the case of infrastructure networks, it would be more cost-effective, efficient and practical to follow the component approach. The approach elected for a specific class of assets should be applied consistently to all assets within that class.

Single-Asset Approach	
Advantages	Disadvantages
It is less expensive and simpler to maintain because it does not require detailed records and estimates of useful lives of the components of assets.	There is no control over the sections of the asset and no information about its total cost, the location of a section or its specific physical attributes. An example would be a road network stretching over 50 kilometres with potholes that need to be repaired and different geological structures owing to the geographical location of the road (e.g. running through rural and urban areas, with different road surfaces such as concrete versus tar, different earth structures, etc.).



Single-Asset Approach	
Advantages	Disadvantages
	<p>It provides only summarised information for asset management plans and financial planning.</p> <p>It can skew the cost information of programmes and services. For example, if an entire electrical network system were to be depreciated over its average expected life of, say, 50 years, the costs of components having expected lives of less than 50 years may well be understated in yearly costs where little maintenance is done and overstated in years where major replacements are required.</p> <p>Estimating the useful life of the total asset is more complex for assets such as buildings and infrastructure assets. For example, pipes in water systems could last 80 years or more based on their physical attributes. Other factors would be capacity, usage, deferred maintenance, effects of idle time, environmental conditions, technical advances and changes in demand due to population growth, etc. These factors need to be taken into account in the estimation of useful life and are easier to estimate on a component basis, making estimations more reliable.</p>

Component Approach	
Advantages	Disadvantages
Complex network systems have major components with significantly different expected useful lives which require replacement at different intervals	This approach requires the creation and maintenance of detailed records and estimates of the useful lives of individual components. However, where components



Component Approach	
Advantages	Disadvantages
<p>throughout the life of the system. It is easier to estimate the useful lives of components than to use a single-asset approach.</p> <p>Accounting for components provides better information on asset condition, location and physical attributes.</p> <p>Information required for asset management plans and financial planning is readily available and can be compiled on local government-wide basis.</p> <p>Information about the cost of providing programmes and services is more accurate since the costs of major components are depreciated and expensed over their individual lives. This may improve pricing decisions.</p> <p>Improves comparability of period-cost information and removes “lumpiness” in period costs since each component is accounted for individually and depreciated over its estimated useful life. Each replacement is capitalised.</p> <p>Information on factors, such as capacity, usage, deferred maintenance, effects of idle time, environmental conditions, technical advances and changes in demand due to population growth, etc., is available and can be taken into account for individual components in the estimation of useful life, thereby improving the accuracy of estimates of useful lives.</p>	<p>having similar useful lives, these items can be grouped together and accounted for.</p> <p>If the component approach is taken to the extreme (to the level of nuts and bolts), it may result in ordinary maintenance being incorrectly treated as a capital expenditure. The costs to maintain such a detailed breakdown will exceed the value added for the management of assets.</p>



GRAP 17 indicates that the component approach should be followed for assets. For further accounting guidance refer to the section on “Accounting for capital assets”.

4.2 Safeguarding and maintaining

Municipalities need to ensure that there are proper controls and safeguards to ensure capital assets are protected against improper use, loss, theft, malicious damage or accidental damage. It is also necessary to ensure that capital assets are maintained to the extent necessary for optimal levels of effective, efficient and economical service delivery.

4.2.1 Responsibilities of each asset manager

The asset manager should have specific responsibilities vis-à-vis municipal assets. These responsibilities should be part of the written systems of delegation and should be included in the relevant municipal policy.

These responsibilities should include:

- ensuring that, when acquiring assets, decisions on how to account for the transactions, e.g. whether they should be capitalised or expensed, are made in full compliance with the MFMA, accounting standards and the LGCAMG;
- ensuring that the purchase of capital assets complies with all municipal policies and procedures, including the acquisition plans;
- ensuring that the correct date on which an asset is put into service or commissioned is properly recorded in the asset register and that the appropriate financial data are recorded;
- ensuring that all capital assets are duly processed, identified and recorded before issued for use;
- ensuring that all capital assets under the asset manager’s control are appropriately safeguarded from inappropriate use or loss, including appropriate control over the physical access to these assets and regular asset verification to ensure losses have not occurred, and ensuring that any known losses are immediately reported to the CFO and loss control officer;



- ensuring that proper procedures for the movement of assets from one user to another, for maintenance, or disposals outside the municipality are in place and enforced;
- ensuring capital assets are utilised for the purpose for which they were acquired by the municipality.

These responsibilities remain until the asset is disposed of, or transferred to another municipality.

4.2.1.1 Separation of duties

Separation of duties is one of the key controls. The municipality should separate the ordering, payment and receipting functions. This means that the official responsible for the purchase request, the person paying for the request and the person receipting the goods cannot be the same person. There should be independent authorisation at every stage of the process. Capturing and authorisation functions should also be separated.

Proper processes and procedures should be in place to ensure this segregation of duties. For example, assets are ordered by the supply chain function on instruction from the user via the asset manager. These assets may be received at central point into the care of the store man (reporting to the supply chain unit) where the numbers and quality of assets delivered by supplier are checked against the order, signed for and recorded in a goods-received register (alternatively the assets could be delivered directly to the user who then notifies the supply chain unit). The asset manager should be notified immediately of the delivery to enable his/her unit to tag, update the asset register with the relevant information (*for further guidance refer to section on "Asset registers"*), issue the asset to the user and notify finance that the payment function can be initiated. The payment for the asset should not be made by the asset manager or the store man. This should be the function of a separate individual/unit in the CFO's office.

4.2.2 Internal controls over asset registers

Controls around asset registers should be sufficient to provide an accurate, reliable and up-to-date account of assets under the control of the municipality.



These controls will also cover access to the asset register to ensure that only authorised recording of all transactions relating to assets takes place.

The asset manager should ensure that the asset register is accurate and complete at all times. This should be tested by performing physical verification tests. Cyclical coverage of assets can vary between types of assets depending on their risk profiles and degree of physical security. Full physical verification should be performed, as a minimum, at each reporting date. If it is not possible to conduct all verifications at the time of reporting, it would be prudent to confirm the acceptability of a phased programme of verification with the external auditor.

4.2.2.1 Validation of the asset register

Validation of the asset register involves verification to show that the information contained in the register is complete and accurate as at a certain date. Compilation of a register can take one to two years and, during that time, assets will have been acquired, enhanced and disposed of. Validation of figures to be used for opening balances is, therefore, required. Lists of additions, enhancements and disposals should be generated and centrally reviewed for reasonableness. Validation is also required on an ongoing basis.

In most cases, there will be some asset movements (additions, enhancements and disposals) between the original valuation and loading of information into the asset register and the reporting date. This information should be maintained and reconciled, and appropriately recorded in the asset register.

Methods of validating figures for opening balances include:

- for land and buildings – documenting the source of information and procedures followed to establish the completeness of the records;
- for other tangible capital assets – circulating information in the asset register to the employees responsible for physical custody of assets (asset custodians) and requesting confirmation of the accuracy and completeness of the records.



4.2.2.2 Controls over physical verification of assets

Planning is the most important procedure in conducting successful asset verification and involves establishing priorities, assigning responsibilities, setting up a problem-resolving mechanism, determining the physical verification method and coordinating all activities. The physical verification date and time is also determined and communicated to all involved.

The asset manager should appoint an asset count supervisor to assist in the planning of the physical asset verification.

The asset count supervisor will be responsible for co-ordination and completion of the physical verification. All issues should be directed to the asset manager for resolution.

Good physical verification procedures:

- Prior identification of all locations at which assets are located.
- Areas to be counted are allocated to teams of counters.
- A systematic approach is taken to ensure a full physical verification (assets should not be omitted or double counted).
- All assets are verified at the same time to ensure no movement takes place to cover irregularities and avoid any double counting or omissions. In the event that verification cannot be performed at the same time, processes are put into place to ensure as little movement of the assets as possible and very strict written authorisation where movements are required.
- Before physical verification commences counters should be given written instructions on the verification procedures. Verbal instructions are given to reinforce the written instructions and to ensure that the counters understand the procedures, know what is required and are familiar with follow-up procedures for resolving variances.
- The instructions clearly delineate the roles and responsibilities of all involved in the physical verification process. A practice asset verification session to illustrate the procedures may be helpful for those who have not previously participated in a physical count.



- Responsibility for the control of the physical verification rests with the asset count supervisor. The supervisor oversees the process to ensure that counting is carried out and that counters are following the procedures laid down.
- The asset count supervisor, together with the asset manager, secures (in advance to ensure availability) staff (other than members of the Asset Management Team (AMT)) to participate in the physical verification procedure as well as independent observers (individuals not ordinarily involved in asset management, for example the internal auditors).
- The master listing of assets should be available for verification and includes the following information:
 - Asset number;
 - Description;
 - Serial number;
 - Last known location;
 - Custodian;
 - Space for condition assessment.
- On the day prior to the physical verification procedure, the responsible AMT member verifies that:
 - all assets received on the day are entered into the system and, where applicable, a barcode label affixed;
 - all movements in the assets under their control throughout the period of review are updated and fully accounted for on the system, and that barcode labels are affixed.
- On the day of the count:
 - staff conducting the physical verification:-
 - ♦ are assigned areas to count;
 - ♦ are provided with the master listing of the assets;
 - ♦ verify the assets within the assigned areas, taking care to identify the assets correctly;
 - ♦ mark assets/attractive items once they have been counted to ensure they are only counted once;
 - ♦ investigate discrepancies as directed by the supervisor and recount assets as requested;



- ◆ ensure that all items within their assigned area are included in the verification and assess the condition of the asset as per the basic condition parameters, and should mark the verification sheet where the asset manager needs to assess and determine whether the asset should be maintained or replaced.
- the asset count supervisor ensures that:-
 - ◆ variances are investigated;
 - ◆ any proposed adjustments are approved by him/herself and the asset manager;
 - ◆ all the steps in the physical verification process, including counts, investigations of variances, are adequately documented; and,
 - ◆ prior to the commencement of the count, that:-
 - › the master listing has been received and signed for by a team leader;
 - › stationery is available for counters (clipboards, pens, etc.);
 - › all the necessary preparations for the production of variance reports have been finalised.
- the accuracy of all master-listing details is confirmed by the counters during verification, e.g. asset number, location, area, serial number, etc. by the counter/count teams. A tick is used to indicate that an asset has been verified.
- during the physical verification, those supervising the count check that all assets have been marked as verified and follow up with the count team if assets are not marked.
- where scanners are used:
 - ◆ all teams are issued with scanners;
 - ◆ once all items in a selected area have been scanned, the scanner is taken to the designated person for downloading and recording on the plan;
 - ◆ a report of items recorded by the scanner is printed;
 - ◆ any barcodes not recognised by the scanner are printed in an exception report and followed up.



- ◆ the team leader responsible for the verification procedure is required to make a manual note of all assets not recorded by the barcode scanner.
- variances are investigated by re-counting the assets and verifying the records of receipts and deliveries to ensure that no counting or cut-off errors have occurred.
- the supervisor evaluates the progress of the physical verification and any adjustments made in the prearranged procedures are documented.
- in the event of assets not found after double checking, the loss control policy and procedures of the municipality are followed. For example, this includes a written statement from the custodian responsible for the asset.
- the loss control should provide for the asset manager to be notified of a possible claim so that further action may be taken as is deemed necessary.
- the responsible team leader should sign the count sheet, together with the count supervisor, to indicate that he/she is satisfied that the asset count was properly conducted and that the results are true and accurate.
- Subsequent to the verification:
 - authorisation for write-off or disposals should be obtained from the CFO.
 - the necessary approved adjustments should be recorded by the asset manager in the asset register.
 - barcode labels should be affixed to assets that were not previously on the master list, and steps are taken to ensure the asset register is updated with this information.
 - detailed reports on the planned physical verification as well as performance reports relating to random physical verification should be submitted to the CFO.
 - the asset manager should evaluate the physical verification procedures applied and determine how these procedures may be modified to improve the next count.



All documentation relating to the verification should be filed securely and be available for audit purposes.

Potential risk of non-compliance with procedures or lack of procedures:

- Inaccurate physical verification procedures could render the verification results unreliable.
- Missing assets could be left undetected.
- Without physical verification procedures when the custody of assets changes, misappropriation of assets could be left undetected. Such a situation could also result in the municipality significantly postponing or losing its right to collect damages.
- The audit trail of transferred assets could be lost.
- Obsolete or redundant assets could continue to be recorded in the asset register.

During the course of the year, for quality control purposes, the AMT should undertake sample physical asset verification based on clear criteria. The sample should focus on areas of high risk, e.g. where there has in the past been a high incidence of accidental or deliberate loss owing to the portability, attractiveness and high value of items.

4.3 Planning and budgeting

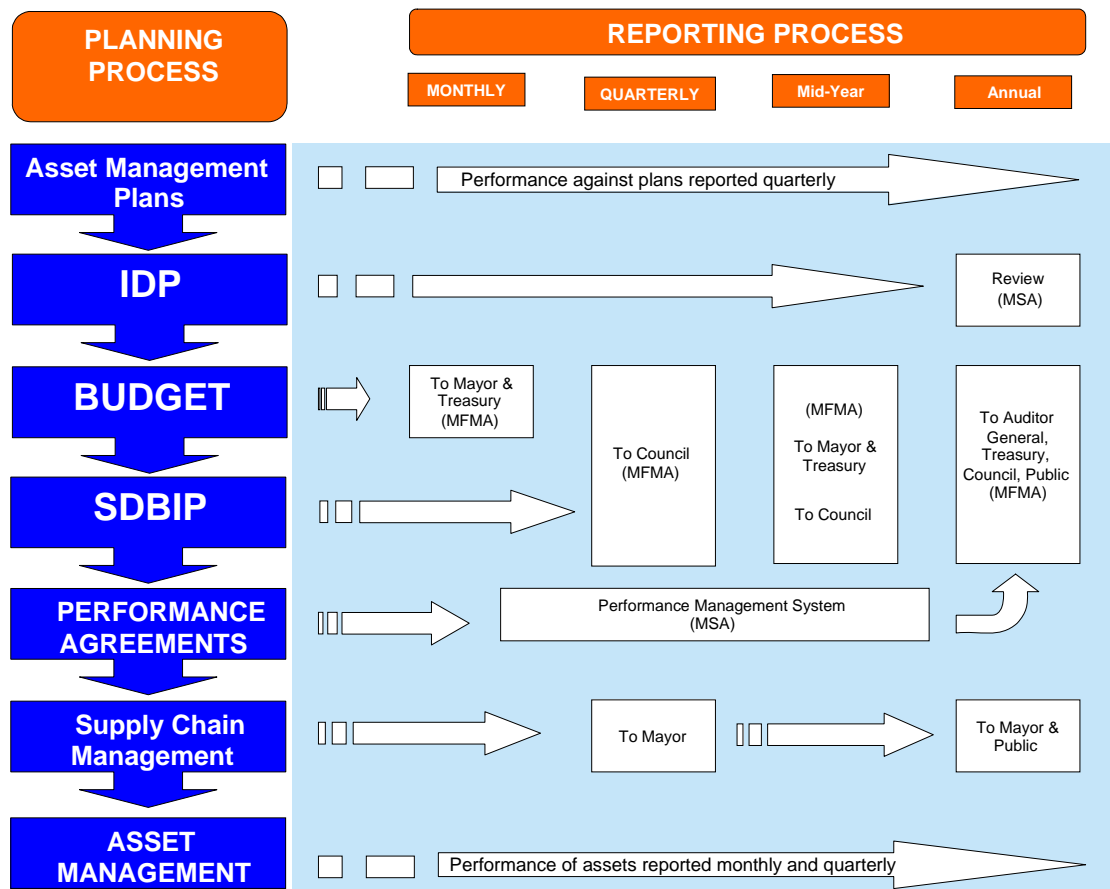
Municipalities should plan for the level of service they have chosen to deliver and how they need to apply the available funding to maintain and expand those services where necessary. This should include service delivery options and funding alternatives.

The decisions taken should be followed through by the drawing up of asset management plans to inform the IDP process. The asset management plans, for example, will inform the maintenance budget (planned maintenance as well as a possible percentage built in for unforeseen circumstances based on experiences in prior years).



4.4 Monitoring and reporting

A municipality needs to monitor the implementation, as expected, of the service delivery plans and budgets. The municipality also needs to report on implementation progress to stakeholders. The MFMA and associated regulations prescribe specific reporting requirements. MFMA circulars and other guidelines provide more explanation on how these requirements should be met and implemented.



The asset manager is responsible for preparing monthly, quarterly, and other reports measuring the implementation progress and deadlines against that of the plan. These reports should be given to the CFO for his authorisation and for inclusion in the formal reports. It is suggested that service performance of capital assets, as well as financial aspects extracted from the asset register, be reported on in the same cycle and also be given to the CFO for his authorisation and for inclusion in the formal reports. The annual report of the municipality should contain information on the performance of capital assets and status of asset management during the year under review.



5 ASSET REGISTERS

An asset register is a complete and accurate database of the assets that is under the control of a municipality and that is regularly updated and validated. An adequate asset register is integral to effective asset management. It is the basis of an asset management information system and should contain relevant data beyond that required for financial reporting.

The asset register provides important information required for effective management of the assets as well as the detail of the figures disclosed in the annual financial statements. This register enables the municipality to maintain sufficient, appropriate audit evidence. It stores information on each asset, which includes amongst others the cost price, date acquired, location, asset condition and expected life. It can also include information on current replacement costs. All assets owned and controlled by an entity must be recorded in an asset register, regardless of the funding source or value thereof. All disposed assets must be excluded.

In its simplest form, an asset register may be a manual document or a spreadsheet. Alternatively, it can be a computerised system that interfaces directly with the general ledger (modern computerised accounting systems have this facility). An asset register does not have to be a single computerised system or document. It can also be a series of subsystems with linkages and a common directory. The design of an asset register will, to a large extent, be influenced by the content of existing asset management systems and databases, but should contain sufficient information for effective management. Where this is not the case, processes should be put in place to ensure that the missing information is collected and documented to enable reporting.

5.1 Creation of the asset register

When collecting asset information, it is useful to consider the diagram below, which illustrates the fields required in an asset register to facilitate effective management. The IT systems that are in use might require information in a specific format, and this should also be taken into consideration before starting the collection process. Even if the ideal software is not yet in place, it is still possible to compile the basic data required for the asset register. At some point,



asset register information may need to be transferred from one format to another. The benefits of making early progress on the asset register need to be compared to the costs and likely time required to transfer information into a different system.

An asset register may be compiled in stages. The first stage involves compiling a database of all tangible capital assets controlled by a reporting entity through physical verification and collecting data such as location, custodian and condition simultaneously. This information can be collected prior to the finalisation of accounting policies, as valuation and measurement issues can be resolved during the second stage. In addition, where information on particular classes of assets is difficult to obtain or determining control is a problem, the information on such assets can be collected separately. Alternatively, identification and valuation can proceed on a class-by-class basis.

In compiling the initial database of assets, it is often helpful to reconcile information in various systems with each other and with financial records. Where the information in an asset register is drawn from a number of different systems, it is essential that the underlying records for all items be reliable. The reliability of the information in existing systems is dependent on the details of additions and disposals having been correctly recorded in preceding years. Errors identified in existing systems need to be resolved and corrected. If the accuracy and completeness of existing systems is in doubt, complete physical verification will be required. If the physical verification is not performed in a structured manner, it will not provide reliable information. It is therefore important to get this right or the process will have to be repeated.

Where data do not appear to be accurate (for example, quantity, location, age), or ownership cannot be immediately resolved, the following should be considered:

- loading the data into the asset register (together with information on the issues to be resolved) and clearly flagging the issue; and
- referring the issue to more specialised staff (for example, legal advisers) for resolution.



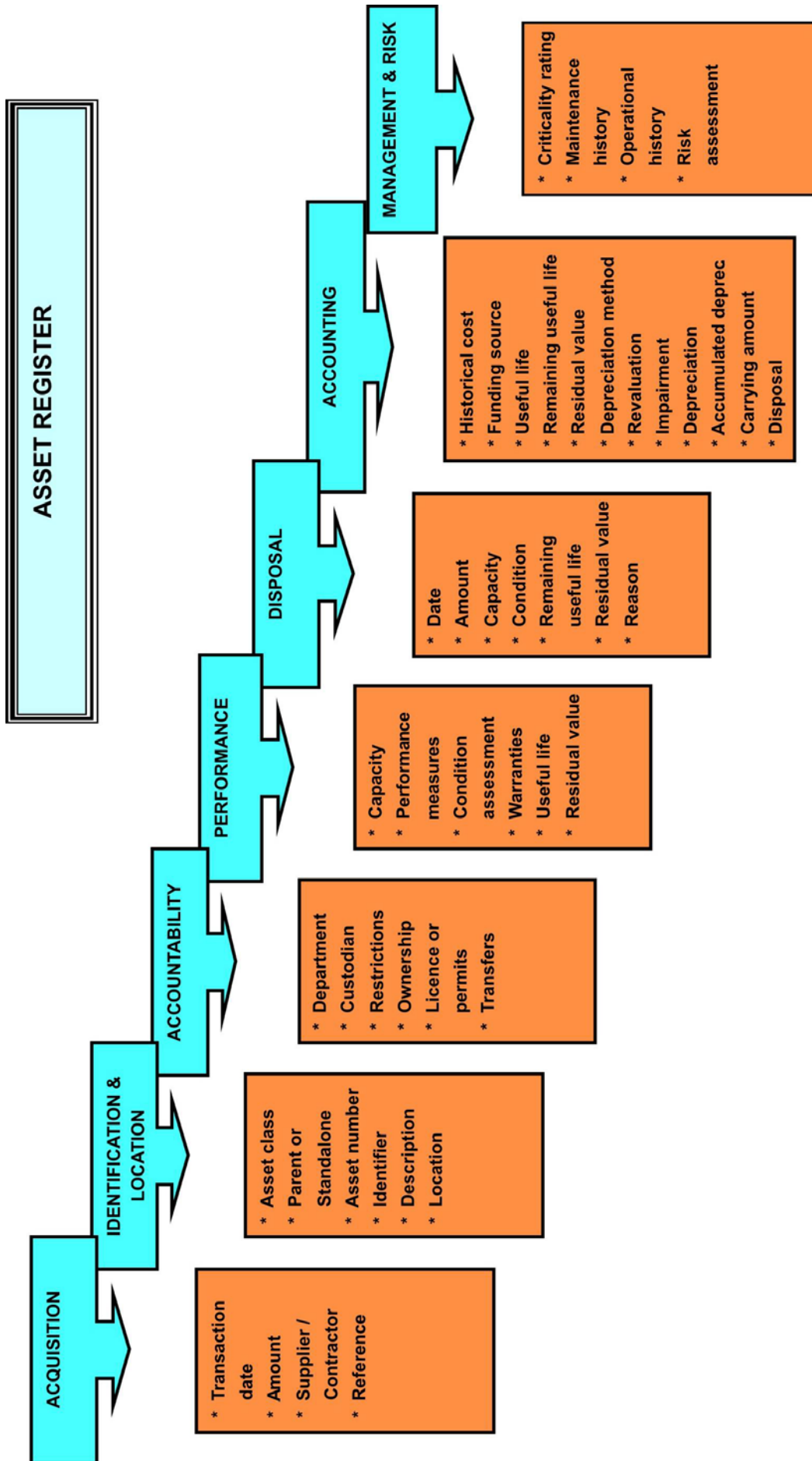
5.1.1 Information to be Included in an Asset Register

The type of information required in an asset register should include information on the following aspects:

- Identification & Location - What and where is this asset, and who does it serve?
- Accountability - Who is accountable and how it is being safeguarded?
- Performance – What is its intended and actual level of service?
- Accounting – How is it accounted for? This should include:
 - valuation basis;
 - depreciation parameters.
- Management & Risk – How is it managed? How critical is it? This should include some maintenance, engineering and operational data and may be summarised from sub-systems.
- Acquisition and disposal – Transactional source (Audit Trail).

The above is only applicable to a capital asset register. For a minor asset register the following should be included as a minimum:

- Identification & Location - What and where is this asset and who does it serve?
- Accounting – How is it accounted for? (historical cost, depreciation, and suggested carrying value of R1)
- Acquisition.
- Disposal - Date, amount, proceeds received, and reason for disposal.





Acquisition

- Transaction Date
- Amount
- Supplier / Contractor
- Reference (invoice/contract/payment/order number).

Identification

- Asset class: should facilitate GRAP financial reporting requirements, e.g. PPE, investment property, intangible asset, etc.
 - Asset sub-class: should facilitate management and reporting, e.g. motor vehicle, furniture, road infrastructure, etc.
 - Asset functional group (if relevant): e.g. clinic, warehouse, hall.
- Parent asset or standalone asset: if parent then must have links to separately depreciable parts.
 - For separately depreciable parts: link to parent asset.
- Asset number: a unique system-generated identifier, bar code or other unique number so that the individual asset can be distinguished from others.
- Asset specific identifiers (where applicable): e.g. serial numbers, registration number, erf. number.
- Asset description: e.g. 2005 Toyota Corolla 140i, brown wooden six-seater boardroom table, etc.
 - Asset dimensions/capacity (if relevant): e.g. 200 litre (tank), 4000 sq metre (building/land)
 - Asset construction (if relevant): e.g. brick, wood, cast iron
- Location: e.g. Office 123, Store Abc, Erf. Xyz
 - Zoning: residential, agricultural, industrial, etc.
 - GPS: recommended for easy location (where relevant).

Accountability

- Department / division: (depends upon organisation)
 - Section / unit (depends upon organisation)
 - Sub-section (depends upon organisation)
 - Cost centre



- Custodian: e.g. user of the asset or person responsible for safeguarding the asset in his/her possession: for laptop, custodian is Mr Jones (Financial Manager).
- Restrictions (if any) in use or changing of an asset
- Ownership (if legal title is not with the municipality)
- Licence or permits
- Transfers: (to record date and transferor).

Performance

- Capacity (where relevant), e.g. 2 tonne, 2000 sq metres, 200 ml/day
- Performance measures (where relevant)
- Condition Assessment (date, rating, person doing assessment, file no – for details)
- Warranties, guaranties or certification
- Useful life: e.g. years/hours/units/mileage, etc. of expected use
- Residual value: to be evaluated annually.

Disposal

- Date
- Amount: proceeds received
- Capacity: at date of disposal
- Condition: e.g. good, fair, bad, etc.
- Remaining useful: if sold earlier than originally planned
- Residual value: to compare with proceeds
- Reason for disposal.

Accounting

- Historical cost (or fair value where cost not available for initial recognition)
- Funding source
- Useful life: (original)
- Remaining useful life: (assessed, date of assessment)
- Residual value: (original, assessed and date of assessment)
- Depreciation method: (straight line, sum of units, diminishing balance, etc.)



- Revaluation: (amount, date, method, by whom): if revaluation model adopted by entity, should continue revaluing for subsequent measurement.
- Impairment. (amount, date assessed)
- Depreciation: value and rate: current year
- Accumulated depreciation: life to date
- Carrying amount
- Disposal (where relevant): (date, realised amount, details on disposal, Council resolution).

Management and risk information

- Criticality rating: prioritisation in terms of service delivery within a programme
 - Service type: e.g. Administration, Water, Electricity
- Maintenance history: (summarised from maintenance systems)
- Operational history: (summarised from maintenance systems)
- Risk assessment: (may reference other documentation).

5.2 Condition assessment

A condition assessment for tangible capital assets is like a general medical check up for people. The regular assessment of the condition and performance of all the tangible capital assets allows the municipality to determine the ability of tangible capital assets to continue to perform and provide services into the future.

While condition assessments for specialised assets like infrastructure would generally be an engineering function, a municipality can also establish basic performance and benchmarking indicators that will assist in the process. For example:

- Keeping historical information on sewer failure could be used to predict when replacements might be needed. This can also be done for motor vehicles and other capital assets.
- Analysing the quality of water treated compared to the quality of water needed can provide a useful indicator of the condition of the treatment plant to provide sufficient treated water, as can:
 - driving on roads and over bridges doing visual inspections and counting potholes and grade separations; and



- reviewing estimated life-cycle costs and comparing them to the actual amounts spent on infrastructure maintenance and replacement.

Condition assessments can become very sophisticated and expensive, and should be part of risk management and performance management. A cost-versus-benefit analysis should be done before deciding to develop sophisticated techniques for an initial compilation of an asset register. More sophisticated techniques can be developed over time as the experience and skills within the municipality increase.

Condition data can be used to predict the timing of remedial action or asset replacement. As time goes by, predictions will become more accurate as more information becomes available.

A condition assessment can be conducted using a top down approach based upon staff knowledge, maintenance records, customer complaints and performance records. A physical check can also be conducted whenever routine maintenance is done. This will facilitate updated condition information and save time as it will eliminate a second visit. Information collected on the condition should be recorded in the asset register and updated in the strategic plans where necessary.

The condition assessment will vary depending upon the class of capital asset being assessed and the asset management policy pertaining to that class. For example, furniture (chairs) will be considered operational until returned to the municipal store because they are broken.

Complex tangible capital assets like buildings, community facilities, roads, water networks and other infrastructure will require a more appropriate asset management policy to ensure a more robust assessment process and criteria. This again will vary between assets.

As a starting point in gaining the necessary understanding, a rating scale such as the one in the following table could be developed for each class of tangible capital asset:



Condition rating table			
Grade	Description	Detailed Description	Estimated Remaining Life
1	Very Good	New, sound structure or appearance, well maintained. Continue with planned maintenance.	As estimated
2	Good	Performance acceptable with minor deterioration (<5%). Normal planned maintenance continues.	As estimated
3	Fair	Clearly evident deterioration (10-20%). Significant maintenance required, consider impairment.	Less than estimated
4	Poor	Significant deterioration in structure or appearance. Significant impairment of performance. Significant maintenance required.	Significantly less than estimated
5	Very Poor	Unsound, does not perform. Reconstruction or replacement required (>50% needs replacement).	None or nominal

It is recommended, when a condition assessment is conducted, that the municipality have clearly defined risk-based parameters and that the asset management processes have been developed and be in operation. The basic asset management processes that should be operational include:

- complete asset registers with appropriately defined capital asset classes;
- performance measurement processes implemented;
- maintenance expenditure and events recorded for the capital assets;
- strategic plans drafted for the medium term;
- asset criticality analysis conducted;
- risk management plans for the capital assets developed; and
- acquisition, operation and maintenance, and disposal plans developed based upon the information in the asset register.



It is important to bear in mind that the benefits of conducting the condition assessment should outweigh the costs of conducting this assessment. For unreasonably expensive condition assessments, alternative approaches should be considered so that the municipality is able to justify the costs while still having fairly reliable information to act upon.

5.3 System linkages and interfaces

Key issues in the design and development of an asset register are:

- Should it be integrated with the general ledger/other systems?
- What information does it need to contain?

The asset register should not operate in isolation of other financial or management systems. It is an integral component of the financial management system and should be closely coupled to the general ledger to facilitate reporting. The particular architecture of each municipality's information systems will depend upon the organisational structure, information system development and asset management demands of that particular municipality.

Where the asset register is not integrated with the general ledger and other systems, information from the asset register needs to be periodically transferred (using a manual or computerised interface) into the general ledger for the preparation of the financial statements and other system for management purposes.

If the asset register is integrated with the general ledger, the opening and closing balance information will automatically flow through into the general ledger, also creating automatic journal entries for depreciation.

Integration of the asset register with other systems has clear advantages. For example, integration of the asset register with the purchasing, capital planning, preventative maintenance, accounts payable (to capture acquisitions) and general ledger systems will:

- minimise manual intervention;
- reduce the possibility of corruption of data or error;
- reduce the number of reconciliations required;



- prevent duplicate data entries and processing; and
- allow journals for depreciation and asset revaluations to be automatically generated.

An asset register may also be integrated with the human resource management information system. This allows the tracking of employee possession of attractive and portable items, and can be used to ensure that assets allocated are returned to the municipality on termination of service.

When designing a new system, it is preferable to integrate/interface the asset management system with the general ledger and other systems. If the municipality is considering a completely new IT network management system (i.e. general ledger, asset management and other systems such as project management, HR, etc.), it should consider a central database. This will facilitate access by all relevant people to the same information and reduce the risk of errors.

During the initial stages of implementation of an asset register, a municipality may be constrained by the nature of existing systems and the time and cost to re-design or replace those systems. Manual or computer interfaces between existing systems and the general ledger will be required. Such interfaces are potential sources of errors, not least of these being the possibility that not all data on assets may be transferred. Careful design, training and testing are required to avoid such interface problems.

The asset management system should contain operational and financial management and reporting information. The asset management system should cover the fields as discussed earlier in this section. This will enable the municipality to develop a comprehensive asset register that will facilitate the financial and operational management of assets.

Additional systems may be required in the management of specific asset classes, e.g. fleet management, lease management, property management, pavement management (roads, etc.), minor asset management, etc. The existence of these

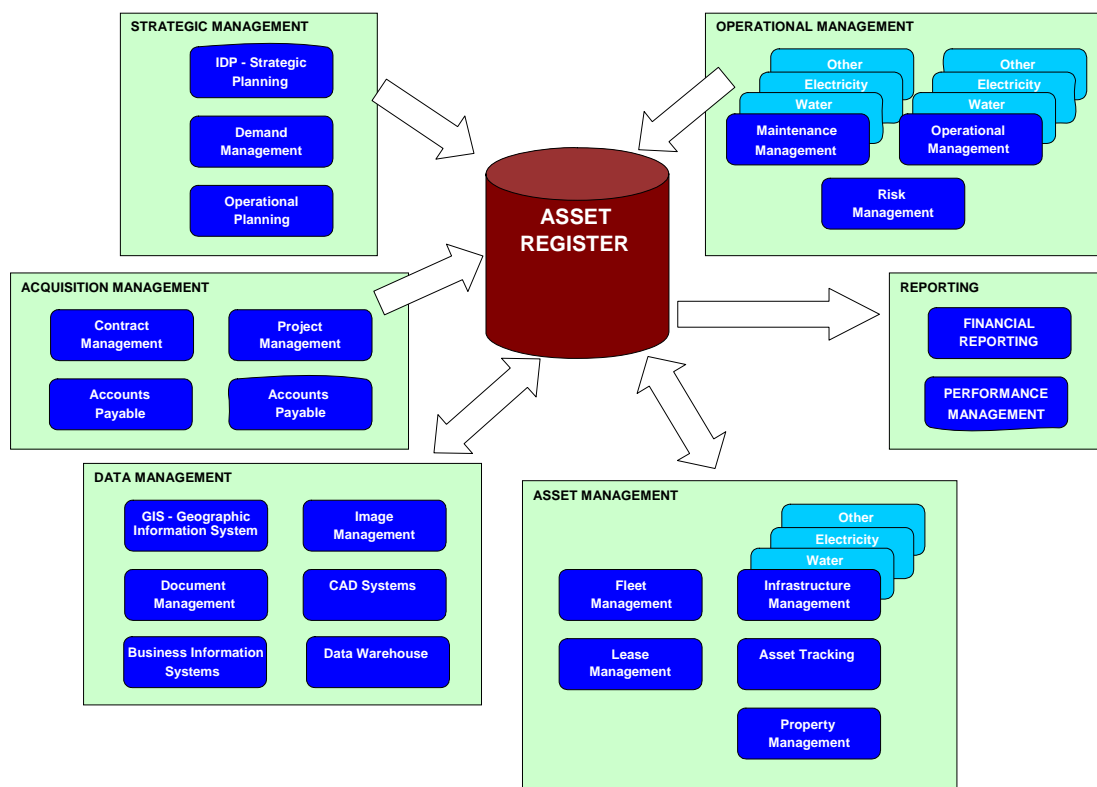


systems does not exclude these assets from the asset register, but will provide additional information. All capital assets must be recorded in an asset register.

Ideally, in an integrated environment, the asset register should be linked to and accessible from a range of information systems, such as a geographic information system, document management systems and image databases.

Technical data from asset operation, maintenance and management systems should be passed to the asset register using a prescribed set of accounting rules and data definitions, making this information accessible to the asset manager from the asset register for the efficient and effective management of assets. Any system that provides information upon which management decisions are made must be subjected to a high level of internal controls to ensure data integrity.

The diagram below illustrates how integrated management systems work and the essential role the asset register plays in facilitating various essential decision-making processes.





5.4 Table of useful lives

Below is a table with parameters for useful lives. Municipalities must use their judgement based on operational experience and in consultation with specialists where necessary (e.g. engineers), in determining the useful life of a particular class of assets. Should the municipality’s management decide on a useful life outside the given parameters, the National Treasury (OAG) should be approached, and provided with a motivation, for its agreement of the rate used.

Elevator and air conditioning systems should be reflected as components of buildings where applicable. For old buildings the cost of these might be difficult to determine and a best estimate (using the depreciated replacement cost) should be made. For all new buildings these costs should be separated from the cost of the building project.

Classes of Assets

		USEFUL LIFE IN YEARS		
		MIN		MAX
PROPERTY, PLANT AND EQUIPMENT				
LAND				
	Developed land			N/A
	Undeveloped land			N/A
BUILDINGS				
DWELLINGS				
	Caravans	5	-	10
	Children’s homes	25	-	30
	Foreign mission dwellings	25	-	30
	Homes for the aged	25		30
	Hostels	25	-	30
	Military personnel dwellings	25	-	30
	Mobile homes	5	-	10
	Places of safety (children)	25	-	30
	Prisons and rehabilitation facilities	25	-	30
	Residences (presidential, embassies)	25	-	30
	Residences (personnel) include garages and parking	25	-	30
	Secure care centres	25	-	30
NON RESIDENTIAL DWELLINGS				
	Airport and associated buildings (control towers, transfer halls, parking, hangars and warehousing)	25	-	30
	Border and custom control points	25	-	30
	Bus terminals	25	-	30
	Bus shelters	10	-	15



	USEFUL LIFE IN YEARS		
	MIN		MAX
Civic theatres	25	-	30
Clinics and community health facilities	25	-	30
Community centres and public entertainment buildings	25	-	30
Driver and vehicle testing centres	25	-	30
Fire stations	25	-	30
Foreign mission offices	25		30
Hospitals and ambulance stations	25	-	30
Industrial buildings	20	-	30
Laboratories	25	-	30
Libraries	25	-	30
Mortuaries	25	-	30
Museums and art galleries	25	-	30
Office buildings (including air conditioning systems)	25	-	30
Public parking (covered and open)	25	-	30
Police stations (and associated buildings)	25	-	30
Railway and associated buildings	25	-	30
Research facilities (including weather)	25	-	30
Stadiums	25	-	30
Taxi ranks	10	-	15
Universities, colleges, schools etc.	25	-	30
Warehouses (storage facilities, including data)	25	-	30

OTHER STRUCTURES (INFRASTRUCTURE ASSETS)

ELECTRICITY

Cooling towers	25	-	30
Mains	15	-	20
Meters			
Prepaid	10	-	20
Credit	20	-	25
Power stations			
Coal	50	-	60
Gas	50	-	60
Hydro	50	-	60
Nuclear	60	-	80
Supply/reticulation	15	-	25
Transformers	25	-	50
Lines			
Underground	25	-	45
Overhead	20	-	30
Cables	25	-	45
Substations			
Switchgear	20	-	30
Equipment			
Outdoor	20	-	30
GIS	15	-	30
Indoor	30	-	40
Electrical panels	3	-	5
Telemetry	7	-	15



USEFUL LIFE IN YEARS		
MIN		MAX

ROADS (Roads, Pavements, Bridges & Storm Water)

BRIDGES

Vehicle

Bridges - Concrete

Bridges - Steel

Bridges - Timber

Pedestrian

Bridges - Concrete

Bridges – Steel

Bridges – Timber

Railway

Bridges - Concrete

Bridges – Steel

Bridges - Timber

Reinforced retaining walls

Earth

Concrete

Expansion and construction joints

STORM WATER

Culverts

Concrete

Armco

Drains

Earthworks

Concrete lining

Stop banks

Pipes

Coastal

Structure (Retaining walls)

Piers

Storm water outfalls

ROADS

Kerb and channels

Municipal roads - Asphalt surface

- Asphalt layer

- Concrete surface

- Concrete layer

- Gravel surface

National roads - Asphalt surface

- Asphalt layer

- Concrete surface

- Concrete layer

- Gravel surface

Provincial roads - Asphalt surface

- Asphalt layer

- Concrete surface

60	-	80
40	-	50
25	-	40
60	-	80
40	-	50
25	-	40
60	-	80
40	-	50
25	-	40
10	-	15
25	-	30
15	-	20
25	-	40
40	-	60
25	-	40
80	-	100
25	-	50
40	-	50
25	-	50
20	-	40
60	-	80
60	-	80
40	-	50
10	-	20
30	-	50
10	-	30
30	-	50
3	-	10
10	-	20
30	-	50
10	-	30
30	-	50
3	-	10
10	-	20
30	-	50
10	-	30



	USEFUL LIFE IN YEARS	
	MIN	MAX
- Concrete layer	30	50
- Gravel surface	3	10
Crash barriers	10	30
Retaining walls	30	60
Overload control centres	15	20
Electronic hardware	10	15
Other equipment	10	20
Pedestrian footpaths	15	30
Street lighting	25	40
Subways	40	50
Traffic islands	40	50
Traffic lights	15	20
Traffic lights – coastal	10	15
Traffic signs	5	15
Toll road plazas	20	30

AIRPORTS

Airports and radio beacons	25	30
Aprons	25	30
Runways	15	20
Taxiways	15	20
Specialised equipment		
Luggage movement equipment	20	25
Communication equipment	10	15

WATER

Dams		
Structure		
- concrete	80	100
- earth	30	50
Mechanical and electrical	15	40
Meters	10	20
Standpipes	5	20
Metalwork (steel stairs, ladders, handrails, weirs)	10	30
Pump stations		
Structure	30	55
Electrical	15	40
Mechanical	15	40
Perimeter protection	10	25
Reservoirs		
Structure	30	50
Electrical	15	40
Mechanical	15	40
Perimeter protection	10	25
Supply/reticulation	20	50
Underground chambers		
Valves	15	25
Meters	10	20
Transition	10	15



USEFUL LIFE IN YEARS		
MIN		MAX
5	-	10
30	-	55
15	-	40
15	-	40
10	-	25
10	-	15
10	-	15

SEWERAGE

Bulk pipelines (outfall sewers)			
Rising mains	40	-	50
Gravity mains	40	-	50
Sewerage pump stations			
Structure	30	-	55
Electrical	15	-	40
Mechanical	15	-	40
Perimeter protection	10	-	25
Metalwork	10	-	30
Sewers/reticulation	30	-	60
Waste purification works			
Structure	30	-	55
Electrical	15	-	40
Mechanical	15	-	40
Perimeter protection	10	-	25
Meters	10	-	15

SOLID WASTE DISPOSAL

Collection			
Vehicles	5	-	10
Containers/Bins	10	-	15
Transfer stations and processing facilities			
Structure	30	-	55
Electrical	15	-	40
Mechanical	15	-	40
Perimeter protection	10	-	25
Landfill site			
Earthmoving and compaction equipment	10	-	15
Landfill preparation	NA		
Structure	30	-	55
Weighbridge			
Mechanical	15	-	40
Electrical	15	-	40
Perimeter protection	10	-	25

RAILWAYS

Power supply units	25		30
Railway sidings	25	-	30
Railway tracks	15	-	20



Signalling systems
Shunting yards

USEFUL LIFE IN YEARS		
MIN		MAX
15		20
25		30

GAS SUPPLY SYSTEMS

Structure
Electrical
Mechanical
Perimeter protection
Stations
 Trunk receiving
 District regulating
Mains/pipelines
Meters
Storage facilities
Supply/reticulation

40	-	50
20	-	25
20	-	25
10	-	15
40	-	50
40	-	50
15	-	20
15	-	20
15	-	20
15	-	20

CEMETERIES

25	-	30
----	---	----

CAPITAL/INFRASTRUCTURE WORK IN PROGRESS

Buildings
Infrastructure
Other

N/A

OTHER MACHINERY AND EQUIPMENT

Audiovisual equipment
Building air conditioning systems
Cellular phones (over R5 000)
Cellular routers
Domestic equipment (non kitchen appliances)
Electric wire and power distribution equipment (compressors, generators & allied equipment)
Emergency/rescue equipment
Elevator systems
Farm/Agricultural equipment
Fire Fighting equipment
Gardening equipment
Irrigation equipment
Kitchen appliances
Laboratory equipment - Agricultural
 - Medical testing
 - Roads and transport
Laundry equipment and industrial sewing machines
Learning, training support and library material (curriculum equipment)
Machines for metallurgy
Machines for mining and quarrying
Machines for textile production
Medical and allied equipment
Music instruments
Photographic equipment

5	-	10
10	-	5
0	-	2
3	-	
3	-	5
5	-	7
5	-	10
15	-	20
5	-	15
3	-	5
2	-	4
10	-	15
5	-	10
5	-	7
5	-	7
5	-	7
10	-	15
5	-	10
5	-	10
5	-	10
10	-	15
5	-	10
10	-	15
5	-	7



Culturally significant buildings (parliamentary buildings)
 National monuments
 National parks/reserves (i.e. Kruger Park)
 Paintings
 Sculptures
 Municipal jewellery
 Works of art
 Other antiques and collections

USEFUL LIFE IN YEARS		
MIN		MAX
	N/A	
	N/A	
	N/A	
	N/A	
	N/A	
	N/A	
	N/A	
	N/A	

BIOLOGICAL OR CULTIVATED ASSETS

Dairy cattle
 Feathered animals (for eggs and feathers)
 Forests and plantations
 Fruit trees
 Game animals
 Animals for reproduction (cattle, goats, sheep, pigs)
 Animals for wool or milk (goats and sheep)
 Dogs (law enforcement and security)
 Horses (law enforcement and working)
 Plants (for production of seeds)
 Vines
 Other animals

	-	
	-	
	-	
	-	
	-	
	-	
	-	
	-	
	-	
	-	

INVESTMENT PROPERTY

INTANGIBLE ASSETS

Capitalised development costs
 Computer software
 Mastheads and publishing titles
 Patents, licences, copyrights, brand names and trademarks
 Recipes, formulae, prototypes, designs and models
 Service and operating rights
 Other intangibles

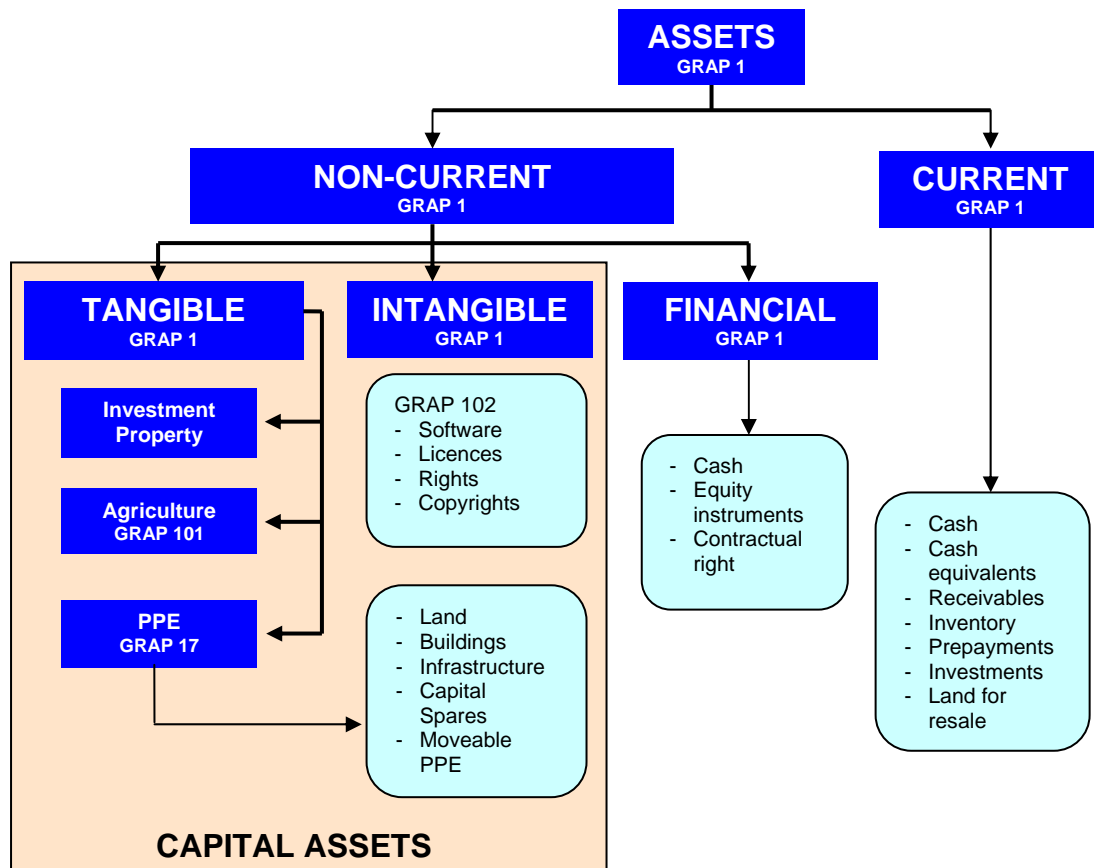
	-	
2	-	5
	-	
	-	
	-	
	-	



6 ACCOUNTING FOR CAPITAL ASSETS

Proper accounting and disclosure for capital assets will ensure better financial management, proper control and greater efficiency in the use of an entity’s assets.

When accounting for capital assets, municipalities should follow the various standards of GRAP relating to the capital assets. The diagram below indicates the various standards that impact the accounting for capital assets as well as the relation between the capital assets and other assets.



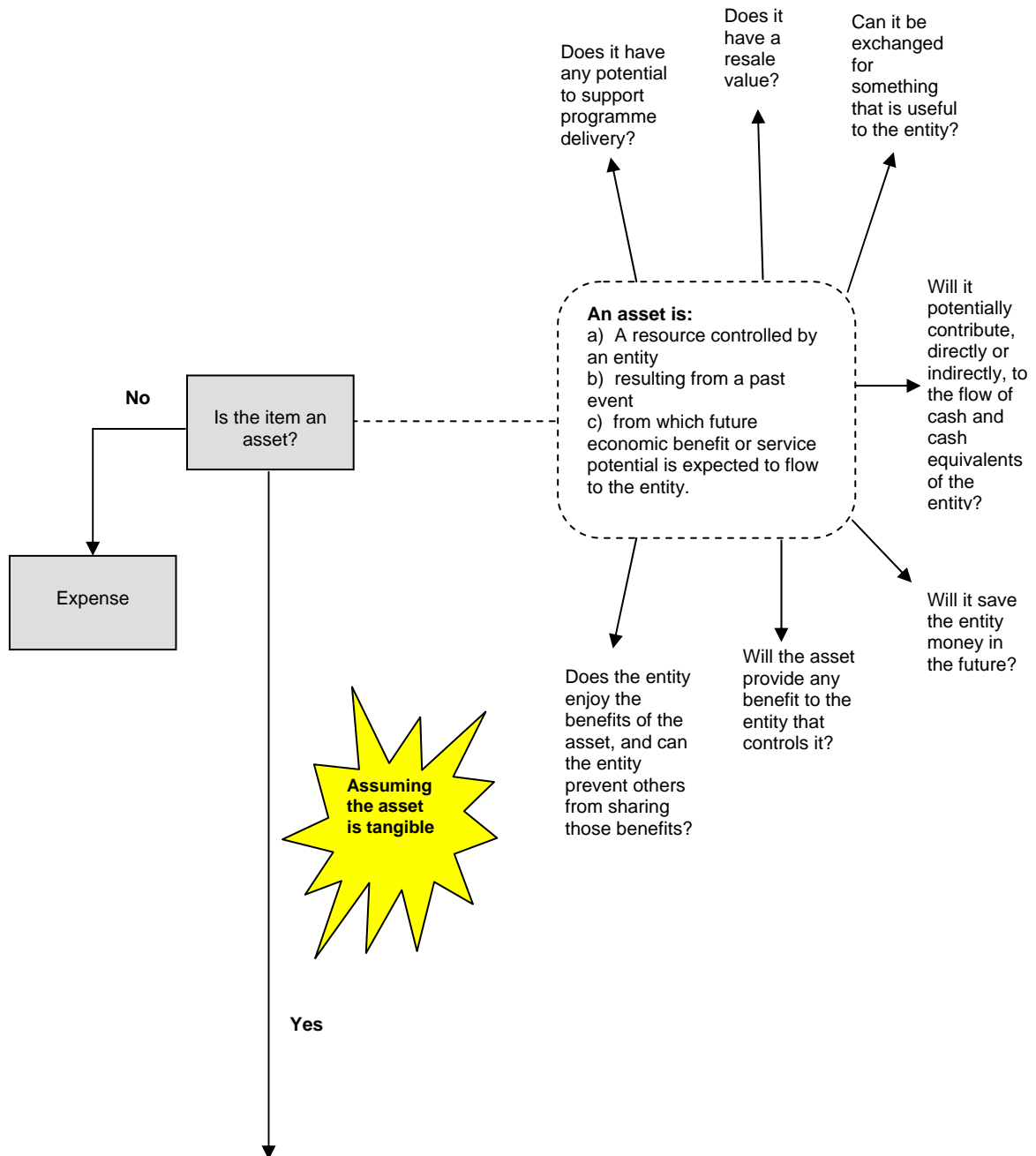
6.1 Recognition of capital assets

An item is recognised in the statement of financial position as a capital asset if it satisfies the definition and the criteria for recognition of assets.

The first step in the recognition process is to establish whether the item meets the definition of an asset. Secondly, the nature of the asset should be determined, and thereafter the recognition criterion is applied.

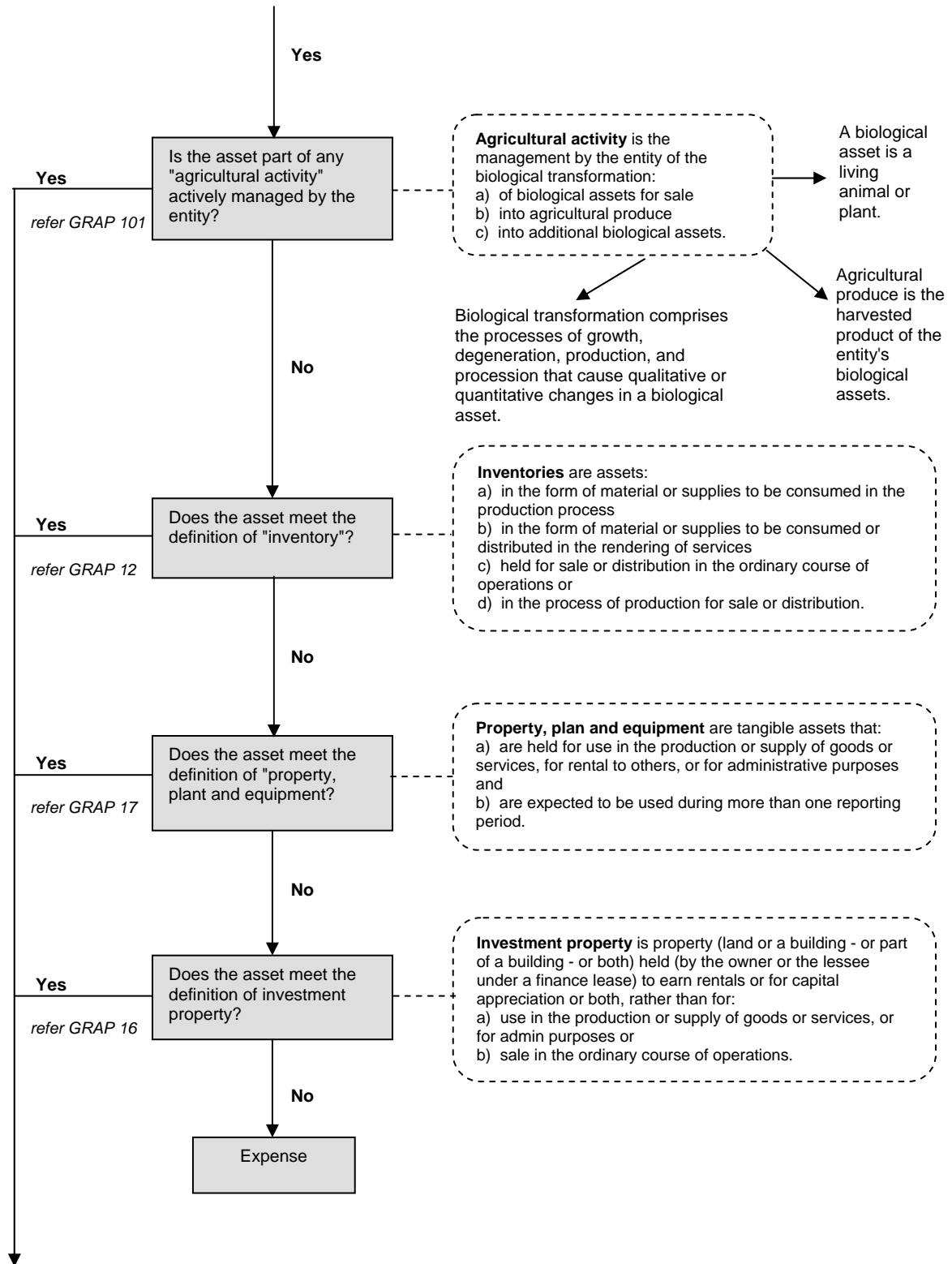


Step 1: Definition of an asset



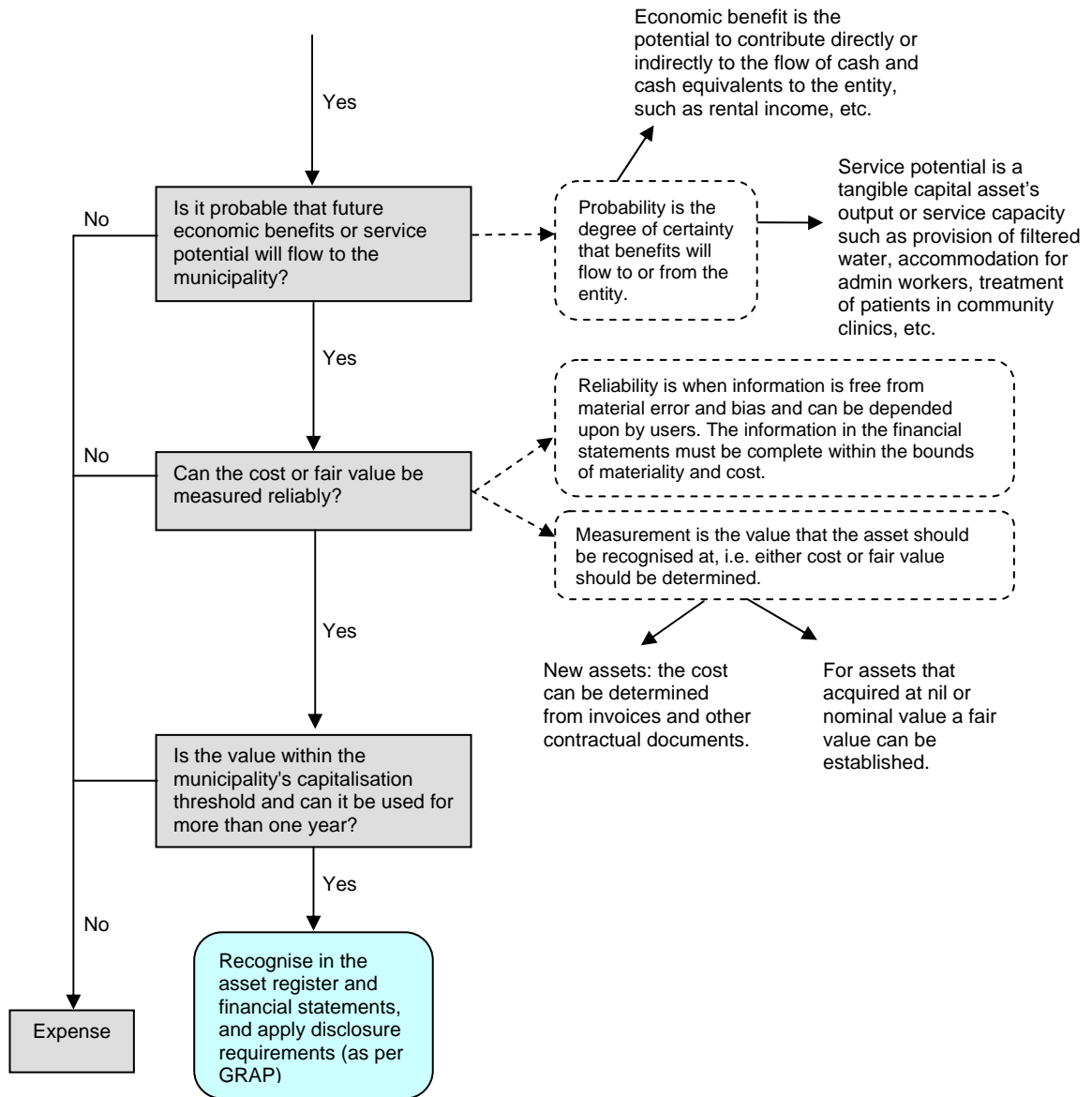


Step 2: Nature of the asset





Step 3: Testing recognition and measurement criteria



6.1.1 Definition and recognition criteria for assets

A capital asset should be recognised as an asset in the financial and asset records when:

- it is probable that future economic benefits or potential service delivery associated with the item will flow to the municipality;
- the cost or fair value of the item to the municipality can be measured reliably;
- the cost is above any municipal capitalisation threshold (if any); and
- the item is expected to be used during more than one financial year.



These criteria are explained below.

6.1.1.1 The probability criteria

The concept of probability is used in the recognition criteria to refer to the degree of certainty that any future economic benefits or service potential associated with the item will flow to or from the entity. This assessment requires judgement.

6.1.1.2 Measurement criteria

The second criterion for the recognition of an item is that it possesses a cost or fair value that can be measured reliably.

- The cost for newly acquired items can be determined from transactional evidence like invoices and other contractual documents.
- Fair value can be established for items acquired at nil or nominal value.

6.1.1.3 Control criteria

Control is an important factor to consider. An entity can “control” an asset without legally owning it or even “physically” controlling it.

An entity is deemed to have control of an asset if it:

- has the capacity to benefit from the asset;
- is able to deny or regulate access of others to that benefit; and
- has the ability to secure the future economic benefit of that asset.

Legal title and physical possession are good indicators of control but they are not infallible. Many assets, for example receivables and property, are associated with legal rights, including the right of ownership. In determining the existence of an asset, the right of ownership is not essential; thus, for example, a vehicle held under finance lease is an asset if the entity controls the benefits which are expected to flow from the vehicle.

Although the capacity of an entity to control benefits is usually the result of legal rights, an item may nonetheless satisfy the definition of an asset even when there is no legal control. For example, know-how obtained from a development activity may meet the definition of an asset when, by keeping



that know-how secret, an entity controls the benefits that are expected to flow from it.

6.1.1.4 Materiality, thresholds and recognition

The capitalisation threshold is a policy decision of a municipality and is the value above which assets are capitalised and reported in the financial statements as tangible or intangible capital assets, as opposed to being expensed in the year of acquisition. As a result, the threshold has a significant impact on the size of the asset register and the complexity of asset management.

Materiality is an important concept both for financial reporting and for the work of the external auditors. Audit procedures are designed to detect individual or cumulative errors that would result in a material misstatement of a municipality's financial statements. Financial statements that contain material misstatements cannot receive an unqualified audit opinion.

It is a mechanism to ensure that the reporting of capital assets is manageable by concentrating on what is material and significant to the municipality's operation.

If, however, the threshold is set too high, there is a risk that the capital assets presented in the financial statements will be materially understated.

Capitalisation thresholds should not be applied to the components of an asset. This could result in the municipality writing off separate parts of their asset. If this were to happen, the asset register would be incomplete in the sense that an asset as recorded would not be a complete asset.

A municipality should take the following into account when considering a capitalisation threshold:

- the impact of the threshold on the financial statements and the decisions/assessments the users of the financial statement may or may not make;



- the cost of maintaining financial and management information on assets when the threshold is very low;
- the impact on comparability and benchmarking cost of services may be difficult if different capitalisation thresholds are applied;
- the size of the municipality or the size of its service areas when setting capitalisation threshold levels. Municipalities vary greatly in size, so what is relevant to one may be immaterial to another.

The following points can assist the municipality in making a decision to implement or change capitalisation thresholds:

- If there is an existing capitalisation threshold, evaluate whether the capitalisation threshold levels are appropriate for each category of asset. Consider whether changes might be required for budget purposes.
- Consider whether a different approach and threshold may be justified for different classes of assets.
- Review materiality levels with the municipal auditors and discuss their impact on the setting of the capitalisation threshold. Are there any special considerations or exceptions for any operational areas? Should different thresholds be used for operational decision-making or can thresholds be established on an entity-wide basis? The cumulative year on year impact of a capitalisation threshold should also be discussed with the municipal auditors
- Review the requirements of data systems and business processes. Can the suggested threshold levels be applied without introducing cost-prohibitive complexity into the processes and systems?
- Draft an operational guideline based on the findings and test it. Consider what impact the threshold might have on operational expenditures from one year to the next in respect of a service area. For example, what is the percentage difference in the net unit cost of a program if an item is expensed or amortised? Is the difference acceptable?

National Treasury has made a policy decision to have a threshold of R5000 for national and provincial departments. Municipalities can apply this threshold value. This means that any asset acquired for R5000 and above will be recorded as a capital asset, and assets lower than R5000 (minor assets)



will be depreciated fully in the year of acquisition i.e. expensed. Refer to the section on “Management of minor assets” for further guidance.

6.1.2 Management of minor assets (assets below the capitalisation threshold)

Minor assets still need to be controlled and safeguarded even though they are not recognised as capital assets in the financial statements. The controls should include all the internal controls pertaining to capital assets.

Minor assets will need to be:

- receipted using the same controls as capital assets;
- recorded in a minor assets register;
- assigned to a particular asset custodian;
- regularly verified to ensure that they are being appropriately safeguarded;
- subjected to regular control audits performed by the internal audit function;
- disposed of and losses reported in line with the specific policies of the municipality.

6.1.2.1 Some potential problem areas with minor assets are loose tools and library books

Loose tools

Loose tools, such as saws, spades, knives, axes, hammers, screwdrivers and spanners or wrenches, are normally not considered as ‘capital’ assets, although they are often used repeatedly, or continuously, in production over many years. This is because such tools are small and relatively inexpensive. Expenditure on such tools takes place at a fairly steady rate and, because of their value, is normally treated as current.

Some flexibility is however needed, depending on the importance of such tools (e.g. the municipality may have a very extensive maintenance unit where the total value of the tools is high). They may be treated as capital assets and their acquisition and disposal recorded as such. Another example is where toolboxes are used. The toolbox can be treated as one unit and as a capital asset since the value of all the tools in the box could be significant.



Library books

The books in a library book collection will be documented and recorded in the library computer systems. The library computer system will be well maintained and can be relied upon to provide the basis for the carrying value of the library book collection.

The value of the library book collection could be determined by applying standard rates to the quantities of different library books of different ages where exact cost is not available.

Where library books of a particular value or importance are kept in the library (Africana) these should be separately recorded and valued. An identification tag should be attached to these books to indicate this status.

6.1.3 Valuation at initial recognition

Most of the GRAP standards (shown below) require that assets be initially recognised at historical cost as this is the most objective and measurable amount.

Standard	Measurement at initial recognition
GRAP 16 – <i>Investment property</i>	Cost*
GRAP 17 – <i>Property, plant and equipment</i>	Cost*
GRAP 101 – <i>Agriculture</i>	Fair value less point of sale costs (only measured at cost if market-determined prices or values are not available and alternative estimates to calculate fair value are identified as being clearly unreliable).
GRAP 102 – <i>Intangible assets</i>	Cost*
* <i>Where assets are “acquired” at no or nominal cost the fair value is deemed to be the cost at initial recognition.</i>	



The costs of newly or recently acquired capital assets are easily determined from transactional records like invoices. For some older municipal capital assets, the transactional records may not exist or the identification of the assets themselves may not be possible from documentation available. In these instances the municipality should use the fair value measurement principles to determine a deemed cost for these assets at initial recognition.

Fair value assumes an active and liquid market that produces current quoted prices for a specific asset. The majority of municipal assets are specialised structures for which such a market does not exist. A municipality will therefore need to use other methods to estimate the cost and accumulated depreciation of those assets.

It is recommended that the initial recognition of assets will be at:

- cost (historic costs) where this can be reliably measured, or
- fair value,
 - open market value, or
 - depreciated replacement cost, or
 - reproduction cost.

The different options would be applied under the following circumstances:

Cost

Costs should be used for newly or recently acquired assets for which clear evidence of costs can be determined from transactional records, e.g. Invoices.


Problems in determining cost

For many old municipal capital assets, it may not be possible to measure the cost reliably and a fair value methodology is required. Examples of the problems include the following:

- Due to the age of the capital asset, the cost records may no longer exist, e.g. heritage assets like the Union Building.
- Capital assets transferred to the municipality without adequate cost records, e.g. the amalgamation process transferred many assets without cost records.



- Previous recording practices have recorded capital assets acquired at the same time as a group of assets. It is not possible to identify the assets individually from the records and this group has to be “unbundled”. For example, an asset called “Road Networks 2002” could consist of a group of various roads, and this record has to be unbundled to identify and separately record each road.
- The municipality discovers capital assets that were not previously reported on, and the cost records are not available. For example, the municipality uncovers additional land belonging to it.

	<p>Example</p> <p>During the physical verification on 28 June 2007, a ten-ton Mercedes Benz truck is identified but has never been entered into the asset register. The invoice for the truck is traced and the following information is collected:</p> <p>Date of purchase: 1 July 2004 Price: R850 000</p> <p>The policy of the municipality is to depreciate trucks over a 7 year period.</p> <p>The municipality has used fund accounting and will, in 2007, report on full accrual accounting for the first time. The transaction will be accounted for as follows:</p> <p>Journal entry</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">Dr</td> <td style="width: 75%;">Truck</td> <td style="width: 20%; text-align: right;">R850 000</td> </tr> <tr> <td></td> <td style="padding-left: 20px;">Cr Accumulated depreciation</td> <td style="text-align: right;">R364 286</td> </tr> <tr> <td></td> <td style="padding-left: 20px;">Cr Retained earnings</td> <td style="text-align: right;">R485 714</td> </tr> </table> <p>The asset register will, apart from the other information required, include both the cost and the accumulated depreciation under the accounting information.</p>	Dr	Truck	R850 000		Cr Accumulated depreciation	R364 286		Cr Retained earnings	R485 714
Dr	Truck	R850 000								
	Cr Accumulated depreciation	R364 286								
	Cr Retained earnings	R485 714								

Fair value

Fair Value should be used in the following circumstances if cost cannot be reliably measured:

- There is an active and liquid market with quotable prices, e.g. land, non-specialised buildings, non-specialised motor vehicles, and many types of moveable equipment.



- An item was acquired at no or nominal cost and its fair value can be reliably measured.
- A previously unreported asset found in the municipality: the cost will be the fair value at the date of adoption of GRAP 17 or on discovery through physical verification.

The process for determining a fair value will vary between different types of assets and their relevant markets. Where there is an active market, the expected prices could be determined from that market, e.g. land, vehicles, and furniture. The market value of land could be determined in accordance with the valuation guidelines of the Municipal Property Rates Act. Specialist assets may require specialist advice where a local or active market does not exist. For example, an old fire engine may be sought after by collectors.

Note: This use of fair value on initial recognition does not constitute a revaluation.

Depreciated replacement cost


Depreciated replacement cost would take into account changes in technology and any major differences between the actual asset and a similar new asset. Depreciated replacement cost should be applied only where cost or fair value cannot be reliably measured for assets such as a specialised building, custom-built motor vehicles or other man-made structures for which an active market with quotable prices does not exist, e.g. water networks, ambulances and dams.

Reproduction cost

Reproduction cost will be applied to assets where the actual structure is important, and a modern equivalent will not do (changes in technology or construction methods do not impact on the estimate). These are usually heritage assets like the Union Building.

Note: The municipality will need to retain records showing how the valuation was determined, including options taken and assumptions made.



	<p>Example</p> <p>Based on the same information provided in the example of the Mercedes Benz truck above, except that an invoice could not be traced and a fair value needs to be established, the remaining useful life is estimated at 4 years by the fleet manager.</p> <p>The local Mercedes Benz dealer is approached to determine the fair value (market value) of the truck. The dealer gives a written valuation for the truck of R450 000.</p> <p>The transaction will be accounted for as follows:</p> <p>Journal entry</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: left;">Dr</td> <td style="width: 60%;">Truck</td> <td style="width: 30%; text-align: right;">R450 000</td> </tr> <tr> <td></td> <td style="text-align: right;">Cr Retained earnings</td> <td style="text-align: right;">R450 000</td> </tr> </table> <p>The asset register will, apart from the other information required, reflect the R450 000 as the cost of the asset. No accumulated depreciation will be listed. Depreciation will commence on 1 July 2007 for the remainder of the useful life of the truck.</p>	Dr	Truck	R450 000		Cr Retained earnings	R450 000
Dr	Truck	R450 000					
	Cr Retained earnings	R450 000					

6.2 Elements of cost

As already indicated previously most GRAP standards indicate that an item that qualifies for recognition as an asset should be initially measured at its cost.

The cost of a capital asset comprises all costs directly attributable to bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. For purchased assets, these costs usually include the following:

- purchase costs (less any discounts given);
- delivery costs;
- installation costs;
- import duties; and
- non-refundable taxes.



For constructed assets, these costs can include the following (depending upon the construction contract and what asset is being constructed):

- survey costs (but not where part of the feasibility study);
- design costs;
- consulting and contractor fees;
- professional fees for architects and engineers;
- permit and legal fees;
- land costs including any demolition and relocations;
- site development costs;
- labour, material and component costs;
- machine and vehicle hire costs;
- freight and transport costs;
- installation and commissioning costs;
- initial inspection and testing costs;
- initial consumable and spare parts;
- cost of rehabilitation or site clearing when the asset is derecognised; and
- borrowing costs directly attributable to the acquisition, construction or production (IAS23).

Research and feasibility costs are usually treated as an operating expense, except where they are part of an approved capital project.

The following costs are not capitalised to the cost of an asset:

- cost of opening a new facility;
- cost of introducing a new product or service;
- cost of staff training; and
- administration and general overheads.

6.3 Component approach

The component approach (discussed in section on “Asset management policies”) is a GRAP-supported approach where complex assets can be split into significant parts for recording. Once an item is identified as a separately depreciable part it can be treated as a separate capital asset for depreciation, recognition and derecognition purposes. It must be noted that, in the asset register, a component



should be linked to a main asset, and that, for reporting purposes, the value of the main asset (including all components) is used.

The key considerations in determining what should become a separately depreciable part (component) are:

- significant cost; and
- considerable difference in useful life.

If the value of a part of the asset is significant (i.e. material) compared to the value of the asset as a whole and/or has a useful life that is considerably different to the useful life of the asset as a whole, it should be recognised as a separately depreciable part (component). For example: an electricity generator is a complete service delivery unit. It is made up of some very large and expensive components such as drive shafts, generator blades and brushes, etc. The life of a generator is about 40 years or more but the maintenance plan indicates that the drive shaft should be replaced every 12 years. Therefore the drive shaft should be recognised as a separately depreciable part over its useful life of 12 years.

The decision on what is to be treated as a separately depreciable part will depend on a municipality's judgement in terms of materiality and management practices. Many capital assets may not have separately depreciable parts, e.g. a motor vehicle.

There are separately depreciable parts for different types of capital assets. These will vary from municipality to municipality depending upon management practices and other factors:

- Moveable Assets: Most moveable assets will not have separately depreciable parts. However, for some moveable assets, e.g. an ambulance, it is common to split the vehicle from its medical equipment and depreciate the parts separately.
- Land: Land is not depreciated, but each land parcel is treated as an individual asset.
- Buildings: Each freestanding building should be treated as an individual asset. A complex comprising a number of buildings may need to be split according to the individual buildings. Some special purpose buildings that are integrated into the infrastructure should be treated as part of that



infrastructure. An office building should be split into separately depreciable components, such as the roof, air conditioning units and lifts (elevator systems) as they have considerably different useful lives from the main structure. A building should also be linked to the land parcel on which it is built, even though the assets are reported on separately.

- Infrastructure Assets: An infrastructure network should be broken down into “separately depreciable parts”, e.g. segment of road seal, length of pipe, or civil component of a pumping station.
- Capital spares: Capital spares normally refer to major spares and are each treated as “separately depreciable parts” of the asset they support, e.g. a back up generator for a water treatment plant. Capital spares are depreciated when they are ready for use. Thus the generator in the above example will begin depreciating once received in the stores.

6.4 Additional guidance on determining cost for initial recognition

The methods for determining costs have been discussed in the section on “Valuation at initial recognition”. No further guidance is necessary for determining historical cost or fair value where an active and liquid market exists. However, depreciated replacement cost is more complex, and additional guidance is provided below.

6.4.1 Depreciated replacement cost


Depreciated replacement cost is an accepted fair value calculation for assets where there is no active and liquid market. The depreciated replacement cost methodology has gained support in asset management activities such as forecasting replacement costs and calculating impairment. It has also become an integral part of the infrastructure management approach. Where an asset consists of separately depreciable parts (components) the depreciated replacement cost of that asset will be the sum of the *depreciated* replacement costs of all the parts/components that comprise that asset.

Depreciated replacement calculation is summarised in this formula:

$$\text{DRC} = \text{CRC} \times \text{RUL} / \text{EUL}$$

[Refer to the list of acronyms for full names/meanings.]



	<p>Example</p> <p>The CRC of a fire engine could be R1 000 000 based upon quotes for a vehicle with the same functionality. If the fire engine is half way through its EUL of 20 years then its RUL will be 10 years.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Current Replacement Costs</td> <td style="width: 10%;">CRC</td> <td style="width: 40%;">= R1 000 000</td> </tr> <tr> <td>Expected Useful Life</td> <td>EUL</td> <td>= 20 years</td> </tr> <tr> <td>Remaining Useful Life</td> <td>RUL</td> <td>= 10 years</td> </tr> </table> <p>In terms of the formula the fire engine's depreciated replacement cost will be R500,000</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Depreciated replacement cost</td> <td style="width: 10%;">DRC</td> <td style="width: 40%;">= R1,000,000 x 10 years / 20 years = R500,000</td> </tr> </table>	Current Replacement Costs	CRC	= R1 000 000	Expected Useful Life	EUL	= 20 years	Remaining Useful Life	RUL	= 10 years	Depreciated replacement cost	DRC	= R1,000,000 x 10 years / 20 years = R500,000
Current Replacement Costs	CRC	= R1 000 000											
Expected Useful Life	EUL	= 20 years											
Remaining Useful Life	RUL	= 10 years											
Depreciated replacement cost	DRC	= R1,000,000 x 10 years / 20 years = R500,000											

6.5 Determination of useful life


The calculation of useful life is a matter of judgment best determined by the relevant asset manager in consultation with the asset experts e.g. the engineer, a facilities manager or a fleet manager who is well versed in the management of that type of asset and its life-cycle. In determining the useful life of an asset, the asset manager will consider many factors including the following:

- expected wear and tear due to operational factors, maintenance and rehabilitation policies;
- economic obsolescence because it is too expensive to maintain;
- functional obsolescence because it no longer meets the municipality's needs;
- technological obsolescence;
- social obsolescence due to changing demographics; and
- legal obsolescence due to statutory constraints.

A schedule of expected useful lives (parameters) is provided. These expected useful lives should be used unless the asset manager can justify a significantly different useful life (i.e. outside the parameters). In this instance NT (OAG) should be contacted and the change motivated.



The calculation of useful life is based upon a particular level of planned maintenance. The useful life must be reviewed annually per GRAP and may need to be decreased where maintenance is deferred.

	<p>Example</p> <p>A dam needs to be maintained in perpetuity because it cannot be allowed to fail and cannot be dismantled, e.g. the Vaal Dam was built in 1938 and is still being maintained and used currently. The life of a dam is influenced by the rate of silting. Desilting and constant maintenance of the dam bank should maintain the life of a dam to a considerable extent. Setting a useful life of a dam at 30 years would not therefore be reasonable as it has a longer useful life.</p>
---	--

6.6 Depreciation

Depreciation allocates the original cost of an asset to expense in the periods in which the asset is consumed. Depreciation is calculated whether the asset is in use or idle. Furthermore, accumulated depreciation is the portion of an asset's original cost that has already been written off as a depreciation expense in prior periods – it is not a sum of cash waiting to be used.

The depreciation charge for each period will be recognised as an expense unless it is included in the carrying amount of another asset, i.e. depreciation included in the capital costs of another asset. The calculation of future funding requirements for asset replacement should be part of the asset management planning processes that should feed into the annual budget.


6.6.1 Depreciation methods

The depreciation method used should reflect the pattern in which economic benefits or service potential are/is consumed by the municipality. The following are the most common depreciation methods that can be applied:


- straight line;
- diminishing balance; and
- sum of the units.



Straight-line method: An equal amount of depreciation will be allocated to each year over an asset’s useful life. The assumption of the straight-line method is that the asset is used equally in each year of use.


	<p>Example</p> <p>A bus is depreciated over 20 years (5% p.a.). Assuming the original cost price of the bus was R380 000 on 1 April 2004, the annual depreciation is calculated as follows:</p> <p><u>Depreciation:</u></p> <table> <tr> <td>2004/2005</td> <td>:</td> <td>R380 000 x 5% = R19 000</td> </tr> <tr> <td>2005/2006</td> <td>:</td> <td>R380 000 x 5% = R19 000</td> </tr> <tr> <td>2006/2007</td> <td>:</td> <td>R380 000 x 5% = R19 000</td> </tr> </table>	2004/2005	:	R380 000 x 5% = R19 000	2005/2006	:	R380 000 x 5% = R19 000	2006/2007	:	R380 000 x 5% = R19 000
2004/2005	:	R380 000 x 5% = R19 000								
2005/2006	:	R380 000 x 5% = R19 000								
2006/2007	:	R380 000 x 5% = R19 000								

Diminishing-balance method: A decreasing depreciation charge over the useful life of the asset is calculated on its carrying value at the beginning of each year.

	<p>Example</p> <p>If the entity elects to depreciate the bus using the diminishing-balance method, the annual depreciation is calculated as follows:</p> <p><u>Depreciation:</u></p> <table> <tr> <td>2004/2005</td> <td>:</td> <td>R380 000 x 5% = R19 000</td> </tr> <tr> <td>2005/2006</td> <td>:</td> <td>(R380 000 – R19 000) x 5% = R18 050</td> </tr> <tr> <td>2006/2007</td> <td>:</td> <td>(R380 000 – R19 000 – 18 050) x 5% = R17 148</td> </tr> </table>	2004/2005	:	R380 000 x 5% = R19 000	2005/2006	:	(R380 000 – R19 000) x 5% = R18 050	2006/2007	:	(R380 000 – R19 000 – 18 050) x 5% = R17 148
2004/2005	:	R380 000 x 5% = R19 000								
2005/2006	:	(R380 000 – R19 000) x 5% = R18 050								
2006/2007	:	(R380 000 – R19 000 – 18 050) x 5% = R17 148								



Sum-of-the-units method: A depreciation charge is based on the expected use or output of the asset.


	<p>Example</p> <p>If the useful life of the bus is based on a number of kilometres driven, the depreciation is calculated as a percentage of the kilometres driven during the year in relation to the total expected kms the bus will drive. Assuming the total number of kms the bus is expected to drive over its useful life is 250 000 kms, the annual depreciation is calculated as follows:</p> <p><u>Kms driven:</u></p> <table data-bbox="528 808 922 927"> <tr><td>2004/2005</td><td>:</td><td>12 000</td></tr> <tr><td>2005/2006</td><td>:</td><td>11 570</td></tr> <tr><td>2006/2007</td><td>:</td><td>10 600</td></tr> </table> <p><u>Depreciation:</u></p> <table data-bbox="528 1021 1233 1140"> <tr><td>2004/2005</td><td>:</td><td>$R380\ 000 \times 12\ 000/250\ 000 = R18\ 240$</td></tr> <tr><td>2005/2006</td><td>:</td><td>$R380\ 000 \times 11\ 570/250\ 000 = R17\ 586$</td></tr> <tr><td>2006/2007</td><td>:</td><td>$R380\ 000 \times 12\ 600/250\ 000 = R19\ 152$</td></tr> </table>	2004/2005	:	12 000	2005/2006	:	11 570	2006/2007	:	10 600	2004/2005	:	$R380\ 000 \times 12\ 000/250\ 000 = R18\ 240$	2005/2006	:	$R380\ 000 \times 11\ 570/250\ 000 = R17\ 586$	2006/2007	:	$R380\ 000 \times 12\ 600/250\ 000 = R19\ 152$
2004/2005	:	12 000																	
2005/2006	:	11 570																	
2006/2007	:	10 600																	
2004/2005	:	$R380\ 000 \times 12\ 000/250\ 000 = R18\ 240$																	
2005/2006	:	$R380\ 000 \times 11\ 570/250\ 000 = R17\ 586$																	
2006/2007	:	$R380\ 000 \times 12\ 600/250\ 000 = R19\ 152$																	

National Treasury recommends the straight-line method.


The useful life and the depreciation method should be reviewed annually.

6.6.2 Accounting transactions for depreciation

The accounting transaction for depreciation is a debit for depreciation (an expense) and a credit for accumulated depreciation (an off set against the assets cost).

	<p>Example</p> <p>A municipality buys a refuse truck on 1 July 2001 at a cost of R2 500 000. The useful life of the truck is 10 years with a residual value of R500 000 (based upon the second-hand truck market). The depreciable amount is therefore R2 000 000, this being the purchase price of R2 500 000 less the residual value of R500 000. The depreciation method is straight line so the annual depreciation charge to expense is R200 000, this being the depreciable amount of R2 000 000 divided by the useful life of 10 years.</p>
---	---



	<p>Example</p> <p>On 1 July 2006 the municipality has a bank balance of R40 000 000. In accordance with the asset-acquisition plan of the municipality a refuse truck is purchased on that date at a cost of R2 500 000. The useful life of the truck is estimated at 7 years with a residual value of R500 000 (based upon the second-hand truck market). The depreciable amount is therefore R2 000 000 (R2 500 000 less R500 000). The depreciation method is straight line. The annual depreciation charge will amount to R285 714 (R 2000 000/7).</p> <p>The transaction will be accounted for as follows:</p> <p>Journal entry</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: right;">Dr</td> <td style="width: 75%;">Refuse truck (1 July 2006)</td> <td style="width: 20%; text-align: right;">R2 500 000</td> </tr> <tr> <td></td> <td style="text-align: right;">Cr Bank</td> <td style="text-align: right;">R2 500 000</td> </tr> <tr> <td style="text-align: right;">Dr</td> <td>Depreciation (30 June 2007)</td> <td style="text-align: right;">R 285 714</td> </tr> <tr> <td></td> <td style="text-align: right;">Cr Accumulated depreciation</td> <td style="text-align: right;">R 285 714</td> </tr> </table> <p>In the Statement of Financial Position, the carrying value of the refuse truck will be reflected as R2 214 286 (R2 500 000 less R285 714). In the Statement of Financial Performance, depreciation will be reflected as an expense at R285 714.</p>	Dr	Refuse truck (1 July 2006)	R2 500 000		Cr Bank	R2 500 000	Dr	Depreciation (30 June 2007)	R 285 714		Cr Accumulated depreciation	R 285 714
Dr	Refuse truck (1 July 2006)	R2 500 000											
	Cr Bank	R2 500 000											
Dr	Depreciation (30 June 2007)	R 285 714											
	Cr Accumulated depreciation	R 285 714											

6.7 Subsequent costs

A municipality should not recognise the costs of the day-to-day servicing of the item in the carrying amount of an item of capital asset. These costs are recognised as expenditure as and when incurred. Day-to-day costs are primarily the costs of labour and consumables, and may include the cost of small parts. The purpose of these expenditures is usually for the 'repair and maintenance' of the capital asset.


Parts of some capital assets may require replacement at regular intervals. For example, a road may need resurfacing every few years; a furnace may require relining after a specified number of hours of use; or aircraft interiors, such as seats and galleys, may require replacement several times during the life of the aircraft. It may also be necessary to make less-frequently recurring replacement of parts, such as replacing the interior walls of a building, or to make a non-recurring replacement. Under the recognition principle, an entity recognises in the



carrying amount of the capital asset the cost of replacing part of such an item when that cost is incurred if the recognition criteria are met. Note: the replaced parts must be derecognised.

A warranty condition from a supplier in order to operate a capital asset (for example, an aircraft) could be to perform regular major inspections for faults regardless of whether parts of the item are replaced. When each major inspection is performed, the cost of the inspection is recognised in the carrying amount of the capital asset if the recognition criteria are satisfied. Any remaining carrying amount of the previous inspection is derecognised. This occurs regardless of whether the cost of the previous inspection was identified in the transaction in which the capital asset was acquired or constructed. If necessary, the estimated cost of a future similar inspection may be used as an indication of what the cost of the existing inspection component was when the asset was acquired or constructed.



	<p>Example</p> <p>Current Expenditure</p> <p>The tyres of a motor vehicle with a cost of R50 000 and carrying value of R10 000 are replaced at a cost of R6 000.</p> <p>The transaction will be accounted for as follows:</p> <p>Journal entry</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;"></td> <td style="width: 10%;">Dr</td> <td style="width: 75%;">Motor vehicle maintenance (expense)</td> <td style="width: 10%; text-align: right;">R 6 000</td> </tr> <tr> <td></td> <td>Cr</td> <td>Bank</td> <td style="text-align: right;">R 6 000</td> </tr> </table> <p>Capital Expenditure</p> <p>The entity reflects a building (bought on 1 July 1980) in its asset register at 30 June 2007 at a carrying value of R720 000. The amount is made up as follows:</p> <p>Structure (useful life 50 years): Cost R1 000 000 and a carrying value of R540 000</p> <p>Elevator system (useful life 30 years): Cost R500 000 and a carrying value of R50 000</p> <p>Air conditioning (useful life 40 years): Cost R400 000 and a carrying value of R130 000</p> <p>For safety reasons the elevator system must be replaced as it has not been maintained properly over its useful life. The old elevator system is sold as scrap for R2 000 on 30 June 2007. The cost of the replacement is R800 000 on 30 June 2007. The transaction will be accounted for as follows:</p> <ol style="list-style-type: none"> 1. Derecognise the old elevator: <table style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 5%;"></td> <td style="width: 10%;">Dr</td> <td style="width: 75%;">Accumulated depreciation</td> <td style="width: 10%; text-align: right;">R 450 000</td> </tr> <tr> <td></td> <td>Dr</td> <td>Bank</td> <td style="text-align: right;">R 2 000</td> </tr> <tr> <td></td> <td>Dr</td> <td>Loss on scrapping</td> <td style="text-align: right;">R 48 000</td> </tr> <tr> <td></td> <td>Cr</td> <td>Elevator system</td> <td style="text-align: right;">R 500 000</td> </tr> </table> 2. Recognise the replacement elevator : <table style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 5%;"></td> <td style="width: 10%;">Dr</td> <td style="width: 75%;">Elevator system</td> <td style="width: 10%; text-align: right;">R 800 000</td> </tr> <tr> <td></td> <td>Cr</td> <td>Bank</td> <td style="text-align: right;">R 800 000</td> </tr> </table> <p>The new carrying value of the building on 30 June 2007 will be R 1 470 000</p>		Dr	Motor vehicle maintenance (expense)	R 6 000		Cr	Bank	R 6 000		Dr	Accumulated depreciation	R 450 000		Dr	Bank	R 2 000		Dr	Loss on scrapping	R 48 000		Cr	Elevator system	R 500 000		Dr	Elevator system	R 800 000		Cr	Bank	R 800 000
	Dr	Motor vehicle maintenance (expense)	R 6 000																														
	Cr	Bank	R 6 000																														
	Dr	Accumulated depreciation	R 450 000																														
	Dr	Bank	R 2 000																														
	Dr	Loss on scrapping	R 48 000																														
	Cr	Elevator system	R 500 000																														
	Dr	Elevator system	R 800 000																														
	Cr	Bank	R 800 000																														



6.7.1 Rehabilitation/Enhancements/Renewals of capital assets

Expenditure to rehabilitate, enhance or renew an existing capital asset (including separately depreciable parts) can be recognised as capital if:

- that expenditure satisfies the recognition criteria;
- that expenditure is enhancing the service provision of that capital asset beyond its original expectation (i.e. not maintenance) and either that expenditure:
 - increases the useful life of that capital asset (beyond its original life);
 - increases that capital asset capacity (beyond its original capacity);
 - increases the performance of the capital asset (beyond the original performance);
 - increases the functionality of that capital asset;
 - reduces the future ownership costs of that capital asset significantly; or
 - increases the size of the asset or changes its shape.

The following points are important to note:

- Approval through the budget process for these improvements may require a business case.
- It must be probable that the expenditure will lead to the level of benefits expected.
- The expenditure to restore the functionality of the capital asset to its original level is a maintenance/refurbishment expense and not a capital expense. Maintenance/ refurbishment will not be capitalised to the capital asset.

The rehabilitated or renewed separately depreciable part will be derecognised and the replacement will be recognised. Where the separately identifiable asset is rehabilitated or renewed, the amount incurred will be added to the carrying value of the asset.

Renewals have the same meaning and treatment as rehabilitation/enhancements and are different from refurbishment, which is seen as maintenance.

Note: There will be exceptions requiring the redefinition of some capital assets. For example, a facilities manager may decide that replacing air conditioners in buildings should be treated as a capital expenditure even though air conditioners



have not been recognised as separately depreciable parts. The asset management policy should be updated and the municipality will be required to unbundle (separate) the building assets into the various components for separate recognition without changing the total value of the building including components as originally recognised. The new air conditioners will be recognised, and the old air conditioners derecognised.

Example


Increasing functionality: Adding wireless network capabilities to a computer network will enhance the functionality of that network. This cost should be added to the relevant computer network assets or may be recognised as a separately-depreciable part of that network. In this case, the life of the network may not have changed, but its functionality will have increased.

Increasing performance: A photocopy machine that can deliver 20 pages per minute is improved to deliver 50 pages per minute.

Reduction of future ownership cost: Cladding is added to a building to reduce future maintenance and painting costs for that building. The savings in future maintenance costs should be significantly greater than the proposed capital expenditure.

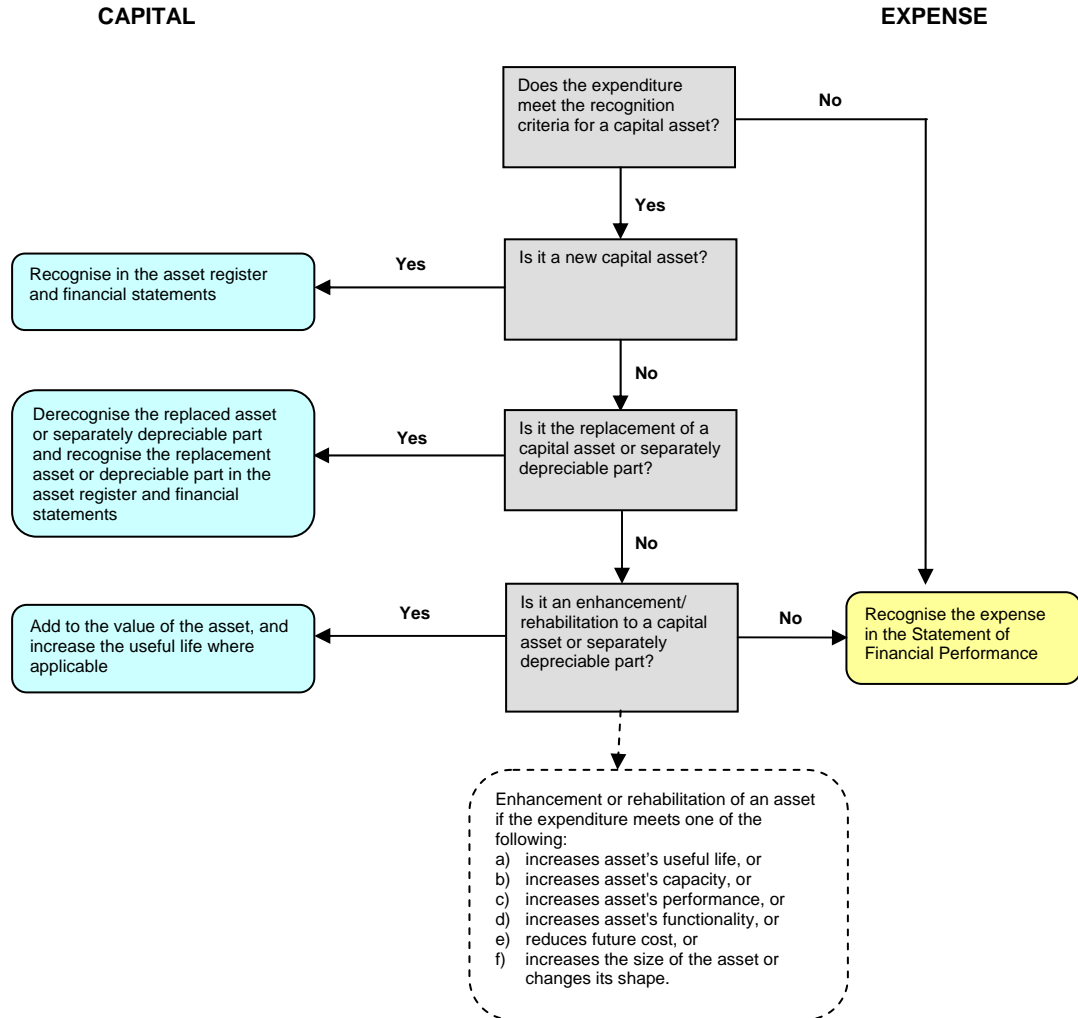
Legislative compliance or risk-mitigation issues: The quality of sewerage treatment at the Sewerage Treatment Works could be increased by building additional processing facilities that improve the outflow of processed water to a level that is suitable for human consumption, as required for health and safety reasons. The life of those assets may or may not be extended.



	Example													
	Rehabilitation/enhancement/renewal A municipal building needs to be rehabilitated as it has been declared unfit for use. The carrying value of the building in the asset register at the beginning of the project is R120 000. The rehabilitation, costing R1 500 000 takes one year and the contractor is paid on completion of the project. The transaction will be accounted for as follows: <table><tr><td>Dr</td><td>Building</td><td>R1 500 000</td></tr><tr><td></td><td>Cr</td><td>Bank</td><td>R1 500 000</td></tr></table> Refurbishment/maintenance A municipal building with a carrying value of R900 000.00 needs to be refurbished as the carpets are worn and the blinds are torn. The refurbishment costs R300 000.00 and takes 3 months to complete. The transaction will be accounted for as follows: <table><tr><td>Dr</td><td>Building maintenance</td><td>R300 000</td></tr><tr><td></td><td>Cr</td><td>Bank</td><td>R300 000</td></tr></table>	Dr	Building	R1 500 000		Cr	Bank	R1 500 000	Dr	Building maintenance	R300 000		Cr	Bank
Dr	Building	R1 500 000												
	Cr	Bank	R1 500 000											
Dr	Building maintenance	R300 000												
	Cr	Bank	R300 000											



CAPITAL VS EXPENSE DECISION TREE



6.8 Capitalising complex projects

Capital projects may deliver different assets that will need to be recognised separately in the asset register. For example, building a stadium will result in many assets including roads, buildings, land, electrical assets, etc.

The following options can be employed to ensure that complex capital projects generate the required identification for clear recognition of individual capital assets in the asset register.

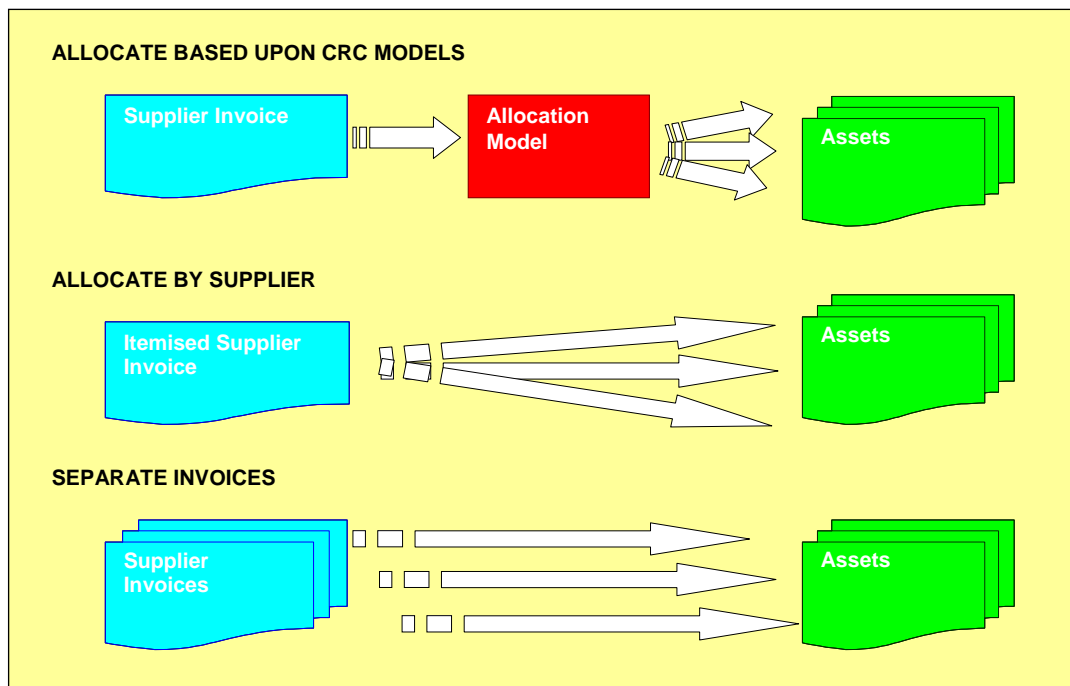
- Require the Contractor to deliver a schedule of assets split to a defined level of detail. There is no guarantee that the contractor will have the right level of




asset management expertise to deliver reliable information on this split. Municipalities must therefore define the split.

- Pay on a per asset basis. That means separate invoices for separate assets. This could be cumbersome.
- Apply an allocation method based upon current market value for such assets.

The project feasibility, design and contract specifications should define the asset components before the project is commenced. Records for the project should be set up in the asset register under a non-depreciable group labelled “Work in Progress”. Progressive costs incurred would be recorded until the assets are complete and ready for use. For practical purposes, complex projects should be structured according to the asset class. A master project plan will detail the total outcome and possibly sub-projects for components. This requires an integrated management approach to include all relevant responsible managers.





	<p>Example</p> <p>A piece of land is bought for the development of a community centre. The project starts on 1 July 2004 and is completed on the 30 June 2007. During this time payments were made for the land at R1 000 000, professional fees at R500 000 and building materials totalling R20 000 000 spread over the three years. An elevator system was installed in the building at a cost of R800 000. The air conditioning system installed cost R1 200 000.</p> <p>The above transactions were accounted for during the project by crediting the bank and debiting work in progress. At the end of the project, the work-in-progress amounts to R23 500 000 and the accounting entry to bring the completed asset into the control accounts from work in progress are as follows:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;">Dr</td> <td style="padding-right: 40px;">Land</td> <td style="text-align: right;">R 1 000 000</td> </tr> <tr> <td>Dr</td> <td>Office building</td> <td style="text-align: right;">R20 500 000</td> </tr> <tr> <td>Dr</td> <td>Elevator system</td> <td style="text-align: right;">R 800 000</td> </tr> <tr> <td>Dr</td> <td>Air conditioning system</td> <td style="text-align: right;">R 1 200 000</td> </tr> <tr> <td></td> <td style="padding-left: 20px;">Cr Work in progress</td> <td style="text-align: right;">R23 500 000</td> </tr> </table> <p>In the asset register, the completed asset should be captured in the same categories as those above, with the elevator system and air conditioning forming components of the building. Land should be recorded separately, but linked to the building built on it.</p> <p>Land is not depreciated. Depreciation on the building and its components will only start on the 1 July 2007 in accordance with the useful lives, as per the accounting policy of the municipality. During the period of construction, no depreciation will be calculated on the work in progress. As payments are made, the cost for each component should be noted and accumulated for eventual inclusion in the asset register.</p>	Dr	Land	R 1 000 000	Dr	Office building	R20 500 000	Dr	Elevator system	R 800 000	Dr	Air conditioning system	R 1 200 000		Cr Work in progress	R23 500 000
Dr	Land	R 1 000 000														
Dr	Office building	R20 500 000														
Dr	Elevator system	R 800 000														
Dr	Air conditioning system	R 1 200 000														
	Cr Work in progress	R23 500 000														

6.9 Measurement after recognition

After initial recognition, the municipality has a choice of two models for its accounting policy to account for capital assets, namely the Cost Model or the Revaluation Model. In the case of investment property the choice is between the Cost Model or the Fair Value Model.



The cost model is the traditional accounting model. The revaluation model is able to provide a measure of the real consumption and status of assets. When deciding on a model, the cost of revaluation, which can be considerable, should be taken into account. The chosen model should be applied to the entire class of capital assets.

COST MODEL

When using this model, the capital asset is carried, after initial recognition, at cost less accumulated depreciation and accumulated impairment losses in the accounting records.

This model requires less administration, is easy to apply and less costly to maintain.

REVALUATION MODEL

Under the revaluation model, the asset is carried at a revalued amount, this being its fair value (that can be measured reliably) at the date of revaluation less subsequent accumulated depreciation and subsequent accumulated impairment losses.

In the revaluation model:

- Revaluations should be carried out regularly, so that the carrying amount of the capital asset does not differ materially from its fair value at the reporting date. The frequency of revaluations depends upon the changes in the fair values of the capital assets being revalued. Some capital assets experience significant and volatile changes in fair value, thus necessitating annual or more regular revaluation.
- If a revaluation results in an increase in value, it should be credited to a revaluation surplus unless it represents the reversal of a revaluation decrease of the same capital asset previously recognised in surplus/deficit.
- A decrease arising as a result of a revaluation should be recognised in the surplus/deficit to the extent that it exceeds any amount previously credited to the revaluation surplus relating to the same asset.
- When a revalued asset is disposed of, any revaluation surplus may be transferred directly to retained earnings. The transfer to retained earnings should not be made through the Statement of Financial Performance.



- An alternative to transferring the revaluation surplus to retained earnings, on derecognition only, is to amortise the surplus as the asset is used by the entity. The amount of surplus transferred will be calculated as the difference between depreciation based on the revalued carrying amount and depreciation based on the asset's original cost.

FAIR VALUE MODEL (Investment Property)

The fair value of investment property is the price at which the property could be exchanged between knowledgeable, willing parties in an arm's length transaction. The fair value of investment property is usually its market value. This estimate specifically excludes an estimated price, inflated or deflated by special terms or circumstances, such as atypical financing, sale and leaseback arrangements, special considerations or concessions granted by anyone associated with the sale.

An entity determines fair value without any deduction for transaction costs that the entity may incur on sale or other disposal.

The fair value of investment property should reflect the actual market conditions and circumstances as at the reporting date.

If an entity has previously measured an investment property at fair value, the entity should continue to measure the property at fair value until disposal (or until the property becomes owner-occupied property or the entity begins to develop the property for subsequent sale in the ordinary course of operations) even if comparable market transactions become less frequent or market prices become less readily available.

A gain or loss arising from a change in the fair value of investment property should be included in the net surplus/deficit for the period in which it arises.

6.10 Subsequent review of assets

Accounting standards require a review of the following at each reporting date:

- depreciation method,
- residual value and useful life, and
- indications of impairment.



In practice all of these reviews would be done together, and usually during the physical verification, when condition assessment is done.

6.10.1 Review of depreciation method

The depreciation method applied to capital assets should be reviewed at least at each reporting date, and, if there has been a significant change in the expected pattern of economic benefits or potential service delivery from those capital assets, the method should be changed to reflect the changed pattern. For example: A straight-line method is used for depreciation of an existing machine. On analysis of the performance of the machine, it was established that the machine worked irregular hours from month to month and year to year. Changing to the sum-of-units method would therefore provide a more accurate reflection of the consumption of the asset during a reporting period. When such a change in depreciation method is necessary, the change should be accounted for as a change in the accounting estimate, and the depreciation charge for the current future periods should be adjusted in accordance with the Standard of GRAP on Accounting Policies, Changes in Accounting Estimates and Errors.

6.10.2 Review of residual value and useful life

The residual value and useful life of an asset should be reviewed at least at each reporting date. If the review indicates that a change has taken place and expectations differ from previous estimates, the changes should be accounted for as a change in the accounting estimate in accordance with the Standard of GRAP on Accounting Policies, Changes in Accounting Estimates and Errors.

The remaining useful life of capital assets should be reviewed annually and, if expectations are significantly different from previous estimates, the depreciation charge for the current and future periods should be adjusted. This review should be done by the asset manager in conjunction with the impairment review.

The review of useful life is a check to see if there is any evidence to suggest that that expected life should be changed. This evidence could be internal or external and will include:



External Sources

- changes in demographics;
- legislative changes that will make the asset obsolete;
- changes in the original industry or manufacturer life estimates;
- expectation that new technological advances will lead to early obsolescence;
- economic obsolescence due to new more cost-effective alternatives; and
- changes to industry standards.

Internal Sources

- significant increase in utilisation;
- asset performance significantly less than expected;
- increased or excessive level of maintenance;
- where a basic condition assessment indicates a significant change in expected useful life;
- plans to replace that asset included in CAPEX;
- service delivery not at acceptable levels due to complaints received; and
- evidence or reports of physical damage.

Examples of evidence are:

- Industry research shows that certain materials will not last as long as first thought, e.g. pre-stressed concrete cylinder pipe.
- Physical impairment is caused by floods washing away a road.
- Radio telephones have become technologically and economically obsolete with the spread of mobile phone technology.
- A road may become demographically obsolete through the development of a better alternative road for that community.
- A sewerage treatment plant has become legislatively obsolete due to the passing of new environmental laws with which the existing plant cannot comply.
- A project to build a new pipe line that will make the existing pipe line redundant is approved.



6.10.3 Impairment Review

Impairment is a loss in the future economic benefits or service potential of an asset, over and above depreciation.

Impairment means the carrying amount of an asset exceeds its recoverable amount or recoverable service amount. Indications for impairment should be assessed at each reporting date.

There are cash-generating and non cash-generating assets.

Cash-generating assets are those that are held to generate a commercial return. An asset generates a commercial return when it is deployed in a manner consistent with that adopted by a profit-orientated entity.

Non-cash-generating assets are assets other than cash-generating assets

Evidence of impairment


- *General*
 - External Sources
 - Significant long-term changes in technology, market, economic, government or legal environment have taken place or will take place in the near future.
 - Internal Sources
 - There is evidence of the obsolescence of or physical damage to an asset.
 - Significant long-term changes in the operational environment will impact on the future expected use of the asset, e.g. discontinued operations, early disposal or reassessment of useful life.
 - Internal reporting indicates worse than expected economic and/or service performance in respect of the asset.
 - Reviews of
 - ♦ significantly decreased remaining useful life (includes various types of obsolesces);
 - ♦ significantly decreased residual value;
 - ♦ significantly decreased replacement cost.



- *Specific to non-cash-generating assets*
 - External Sources
 - There is cessation, or near cessation, of the demand or need for services provided by the asset.
 - Internal Sources
 - A decision is taken to halt the construction of the asset before it is complete or in a usable condition.
- *Specific to cash-generating assets*
 - External Sources
 - Market interest rates or other market rates of return on investments have increased during the period, and those increases are likely to affect the discount rate used in calculating an asset's value in use and materially decrease the asset's recoverable amount.
 - An asset's market value has declined significantly during the reporting period, more than would have been expected as a result of the passage of time or normal use.

The impairment reduction should be recognised as an immediate expense, unless it reverses a previous revaluation in which case it should be charged to a “revaluation surplus”. It is then necessary to link each asset to its impact on the “revaluation surplus” because a revaluation is usually based upon a class of assets whereas impairment could affect a single asset or class of assets.

If an asset is impaired it should be written down to its recoverable amount.

	<p>Example</p> <p>Below are some typical situations where impairment has occurred:</p> <ul style="list-style-type: none"> ○ A municipality owns a building that it rents to external parties, and there is a significant decline in market rentals. ○ New environmental legislation is passed that restricts the use of certain landfill sites. ○ New technical evidence shows that a certain type of underground pipe has a significantly shorter useful life than expected. ○ High rainfall has damaged certain roads and their associated infrastructure. ○ New wireless technology has been developed that will make certain wire-based computer networks obsolete.
---	---




For further guidance on impairment reference should be made to detailed GRAP Guidelines.

6.11 Accounting treatment on disposal

Capital assets should be eliminated from the Statement of Financial Position on disposal or when the capital asset is permanently withdrawn from use and no future economic benefits or potential service delivery is expected from its disposal.

Gains or losses arising from the retirement or disposal of a capital asset should be determined as the difference between the net disposal proceeds and the carrying amount of the capital asset, and should be recognised as revenue or expense in the Statement of Financial Performance.

	<p>Example of journal entries</p>																	
	<p>An asset is sold for R20 000. The cost of that asset is R50 000 and its accumulated depreciation is R40 000.</p> <p>To record the disposal of an asset. (This should be done through the appropriate department in compliance with the appropriate controls.)</p> <table data-bbox="574 1321 1358 1422"> <tr> <td>Dr</td> <td>Bank</td> <td>R 20 000</td> </tr> <tr> <td></td> <td>Cr</td> <td>Sale Proceeds (Revenue) R 20 000</td> </tr> </table> <p>To record the derecognition of the asset and its removal from the asset register. (The CFO's department in charge of the asset register will process these transactions).</p> <table data-bbox="574 1635 1358 1825"> <tr> <td>Dr</td> <td>Accumulated Depreciation</td> <td>R 40 000</td> </tr> <tr> <td></td> <td>Cr</td> <td>Asset R 50 000</td> </tr> <tr> <td>Dr</td> <td>Sale Proceeds (different a/c to above)</td> <td>R 20 000</td> </tr> <tr> <td></td> <td>Cr</td> <td>Loss/Gain on Sale of Asset (gain) R 10 000</td> </tr> </table> <p>The loss or gain is the difference between the proceeds and the carrying amount of the assets (cost less accumulated depreciation).</p>	Dr	Bank	R 20 000		Cr	Sale Proceeds (Revenue) R 20 000	Dr	Accumulated Depreciation	R 40 000		Cr	Asset R 50 000	Dr	Sale Proceeds (different a/c to above)	R 20 000		Cr
Dr	Bank	R 20 000																
	Cr	Sale Proceeds (Revenue) R 20 000																
Dr	Accumulated Depreciation	R 40 000																
	Cr	Asset R 50 000																
Dr	Sale Proceeds (different a/c to above)	R 20 000																
	Cr	Loss/Gain on Sale of Asset (gain) R 10 000																



Note: If the gain / loss on disposal of an asset is material in terms of amount and nature, the gain or loss may need to be disclosed as an abnormal item in the financial statements.

6.12 Capital spares

There is often uncertainty in this area because judgment is required to determine if a particular spare is “inventory” as defined by GRAP 12 or PPE as defined by GRAP 17.

The internationally recognised position is contained in GRAP 12:

In identifying whether an item constitutes a separate item of property, plant and equipment or whether it constitutes inventory, judgement is required in applying the criteria in the definition of property, plant and equipments and inventory to specific circumstances or specific types of entities. Most spare parts and servicing equipment are usually carried as inventory and recognised as an expense as consumed. However, major spare parts and stand-by equipment qualify as property, plant and equipment when the entity expects to use them over more than one period. Similarly, if spare parts and service equipment can be used only in connection with an item of property, plant and equipment and their use is expected to be irregular, they are accounted for as property, plant and equipment and are depreciated over a time period not exceeding the useful life of the related asset.

Therefore as a guide, a spare should be treated as a PPE when:

- it is expected to be used over more than one period; or
- it is a dedicated spare where its use is expected to be irregular.

In other cases it should be treated as an inventory.

The main types of spares are:

- major spares (which depends upon materiality);
- stand-by equipment (which is for that specific purpose);
- dedicated spares (purchased for a specific asset); and
- rotating spares.



Suggested treatment of specific types of spares

Major spares

To be classified as a major spare, a spare should be greater than the appropriate municipal capitalisation threshold and be able to be classified as a separately depreciable part (refer to that section). The treatment of major spares will be as follows:

- Purchase of a qualifying major spare will be treated as capital.
- The major spare will be depreciated over its useful life. (This should be defined for each separately-depreciated asset.)
- The depreciation will start immediately because the spare is already performing a function by being available for immediate use.
- The replacement of a part with this major spare will be treated as a write off of the replaced spare, and the location of the major spare updated in the asset register.
- The major spare will continue to depreciate at its current rate. (Unless otherwise advised by the asset manager).

Stand-by spares

These are similar to critical spares but not dedicated to a specific asset. They will be treated in the same way as major spares.

Dedicated spares

Dedicated spares are spares that can only be used for specific capital assets. This could include spares of a type that would otherwise be treated as inventory. Therefore, dedicated spares, regardless of their value, will always be treated as capital spares.

Dedicated spares should be depreciated over the life of the capital asset for which they were purchased. Once a dedicated spare is used, its carrying amount should be expensed as part of the maintenance cost of the municipality.



Rotating spares

These are spares that can be used many times over, provided they are rehabilitated after each use, for example bus engines, electrical generators, and pumps.

These should be treated as capital assets. The asset will be depreciated over its extended useful life, whereas the rehabilitated part will be depreciated over its expected duration of use. Thus, the spare taken out (A) of the asset should be fully depreciated at the point of removal. The cost of the rehabilitation of the replacement (B) will be depreciated over the duration of use. The replaced part (A) will be rehabilitated and then be ready to be rotated.

6.13 Capital work in progress

Under GRAP 17, cost incurred on self-constructed assets is regarded as capital expenditure. In the case of self-constructed assets, a relevant and reliable measurement of the cost can be derived from the transactions with parties external to the entity for the acquisition of the materials, labour and other inputs used during the construction process. GRAP 17 furthermore states that the cost of a self-constructed asset is determined using the same principles as those used for an acquired asset. The cost of abnormal amounts of wasted material, labour or other resources incurred in the production of a self-constructed asset is not included in the cost of the asset.

Under GRAP 11 Construction Contracts, costs incurred in the construction of assets would be regarded as inventory for the contractor. The motivation for this is that contractors usually carry out construction as their main business on behalf of other parties. The contracts therefore represent revenue for the contractor, and the expenditure incurred will be in the production of income. Where a contractor constructs an asset for his/her own use, however, the costs incurred directly related to that project will fall within the ambit of GRAP 17.

GRAP 11 only applies to the contractor, defined as “an entity that performs construction work pursuant to a construction contract”. This standard does not apply where the entity is not a contractor, but the construction of an asset is incidental to its core activities.



Capital work in progress must be accumulated on a project basis and included in the asset register as work in progress as incurred. The accumulation of all costs will be transferred to the relevant class of asset in the asset register once the asset is complete and available for use. No depreciation will be calculated on the work in progress as it is not, as yet, an asset ready for use. In the financial records this work in progress will be budgeted and accounted for under capital expenditure.



Bibliography

Accounting Standards Board South Africa (ASB). Standards of Generally Recognised Accounting Practice (GRAP):

Preface To The Standards Of Generally Recognised Accounting Practice

(GRAP) 1 - Presentation Of Financial Statements

(GRAP) 12 – Inventories

(GRAP) 16 - Investment Property

(GRAP) 17 - Property Plant And Equipment

(GRAP) 101 – Agriculture

(GRAP) 102 - Intangible Assets

ANAO. (1996) *Asset Management Handbook*. Commonwealth of Australia, Canberra

Australian Accounting Standards Board. (2004) *Interpretation 1055: Accounting For Road Earthworks*.

Brisbane City Council.

(2006) Water And Sewerage Infrastructure Asset Review.

(1993) Accounting Concepts For Management & Accountability In Local Government.
Commonwealth Bank.

Brisbane Water (1996) *Identification And Valuation Of Non-Current Assets*.

CICA (Canadian Institute Of Chartered Accountants)..

(2002) Accounting for Infrastructure in the Public Sector.

(2007) Guide to Accounting for and Reporting Tangible Capital Assets.

Cottrell, J. and O'Reilly, P. (2004) *Asset And Liability Management: Best Practice Guideline*.

Department of Local Government and Planning Queensland. (2003) *Roads Infrastructure Assets*. www.dlgp.qld.gov.au

Department of Local Government NSW. (1999) *Local Government Asset Accounting Manual*
[Www.Dlg.Nsw.Gov.Au](http://www.Dlg.Nsw.Gov.Au)

Department of Provincial and Local Government South Africa. (2007) *Guidelines for Infrastructure Asset Management in Local Government 2006-2009*.

Department of Public Works And Services NSW (DPWS). (1998) *Economical & Environmental Life Cycle Costs Of Buildings*.

Department of Public Works South Africa. (2006) *National Infrastructure Maintenance Strategy*.



Department of Water Affairs and Forestry South Africa (2007) *Verification And Valuation of Major Water Infrastructure Assets*.

Division of Environmental Management Tasmania (1996): *Guidelines for the Rehabilitation of Refuse Disposal Sites*. www.Environment.Tas.Gov.Au

Environmental Protection Agency USA. (2003) *Asset Management: A Handbook For Small Water Systems*. www.epa.gov/safewater

Ernest & Young, Burns P. & Byrne R.. (1997) *SCRAM Water Industry Asset Valuation Study: Draft Guidelines On Determining Full Cost Recovery*.

European Union Project with Mbombela. (2005) *Mbombela Municipality Water Asset Management Plan*.

Federal Highway Administration USA. (2005) *Transportation Asset Management In Australia, Canada, England, and New Zealand* <http://international.fhwa.dot.gov/Assetmanagement/>.

Geho, M. (2003) *Prospects of Applying Computer Aided Mass Valuation In Tanzania*.

Government Finance Officers Association USA. (2007) *Establishing the Estimated Useful Lives of Capital Assets*.

Gitiz-Is Ethiopia. (2006) *Manual Series on Infrastructure: Asset Management*.

Hayford. S. (2004) *Design of a Land Value Information System to Support Land Reform Programme: Case Study Of Namibia*.

Hope, D. and Howard, J.

(2006) *Capitalisation Policies - Australian Infrastructure Financial Management Guidelines*. www.nams.au.com

(2007) *Asset Consumption And Asset Renewal - Australian Infrastructure Financial Management Guidelines* www.nams.au.com

Hope, D. and Rimmington, G. (2005) *Managing Community Asset: Management Guideline for Provincial and Municipal Staff*. Australian South Africa Local Governance Partnership (ASALGP).

Howard, J. (2006) *Recognition Of An Asset - Australian Infrastructure Financial Management Guidelines*. www.nams.au.com

International Accounting Standards. (2004)

IAS 36 - Impairment of Assets.

IAS 38 - Intangible Assets.

Kroukamp, B. (2007) *Infrastructure Asset Management: Consultancy to Scan Current Initiatives and Promote Inter-Governmental Coherence*.

Lemer, A.C. 2002. *Getting the Most out of your Infrastructure Assets – A Guide to Using*



- Infrastructure Asset Management Systems*. American Public Works Association (APWA). Local Government Victoria. (2006) *Guideline to Measuring and Reporting the Condition of Roads*. www.dvc.vic.gov.au
- McMillan, G. and Russell, B. (1992) *Managing Community Assets in Local Government*.
- Misiunas, D. (2005) *Failure Monitoring and Asset Condition Assessment in Water Supply Systems*. www.iea.lth.se/
- Mynhardt, S. (2007) *IFMS Concept Of Operations Supply Chain Management Asset Management*.
- National Department of Transport South Africa. (2002) *Road Infrastructure Strategic Framework for South Africa: A Discussion Document*. www.transport.gov.za
- National Research Council Canada. (2003) *National Guide to Sustainable Municipal Infrastructure: Best Practices for Utility-Based Data*. www.infraguide.gc.ca
- National Research Council Canada. (2003) *National Guide to Sustainable Municipal Infrastructure: Planning and Defining Municipal Infrastructure Needs*. www.infraguide.ca
- National Research Council Canada. (2003) *National Guide to Sustainable Municipal Infrastructure (Infraguide): Sustainable Municipal Infrastructure Principles and Guidelines*. www.infraguide.ca
- National Research Council Canada. (2003). *National Guide To Sustainable Municipal Infrastructure (Infraguide): Decision Making And Investment Planning*. www.infraguide.ca
- National Treasury South Africa.
- (2004) *Asset Management Framework*.
 - (2004) *Asset Management Learners Guide*.
 - (2005) *MFMA Circular No. 18 - Implementation of New Accounting Standards and Format of Annual Financial Statements*.
 - (2007) *Basis for Preparation for the Annual Financial Statements of Municipalities and Municipal Entities*.
 - (2007) *Framework for Managing Programme Performance Information*.
- New Mexico Environmental Finance Center. (2006) *Asset Management:: A Guideline for Water and Wastewater*.
- Office Of Legislative Auditor USA. (2000) *Preventative Maintenance for Local Government Buildings: A Best Practice Review*. www.auditor.leg.state.mn.us
- Ontario Municipal Benchmarking Initiative (OMBI). *Municipal Guide to Accounting for Tangible Capital Assets*.
- Power, P.B. (2004) *Depreciated Replacement Cost Valuation Handbook: For the Valuation of The Electrical Network Assets of the Electricity Distribution Industry in South Africa*
- Financial Services Division. (s.a.) *Policy on Assets and Portable and Attractive Items Stocktake*



Procedures - University Policies and Procedure Manual. Central Queensland University.
Queensland Audit Office.

(2003) *Better Practice Guidelines For Non-Current Assets.* www.qao.qld.gov.au.

(2004) *Guidelines On Accounting Standard AASB 136 Impairment Of Assets..*

www.qao.qld.gov.auwww.qao.qld.gov.au.

(2005) *Management Of Infrastructure Assets By Local Governments.*

www.Qao.Qld.Gov.Au

Queensland Treasury (2005) *Non-Current Asset Policies For The Queensland Public Sector.*

www.treasury.qld.gov.au

Republic Of South Africa

(1996) *Constitution Of The Republic Of South Africa 1996.*

(2000) *Municipal Systems Act No 32 Of 2000.*

(2003) *Municipal Finance Management Act 56 Of 2003.*

(2003) *Municipal Systems Act No 44 Of 2003.*

Roche, D. Anderson, M. and Kadar, P. (2004) *New Asset Criticality Model Delivers*

Improvements to the Management of Risk at City West Water. Www.Mwhglobal.Com.Au

Savage, M. and Howard, J. (2006) *Determining Remaining Useful Life.* Australian Infrastructure

Financial Management Guidelines Www.Nams.Au.Com

Simpkin K and Jensen G (1995) *Accounting for Infrastructure Assets: Loss of Service Potential.*

A Discussion Paper for The SOLGM Financial And Management Accounting Working Party.

Sing J. (1998). *Depreciating Infrastructure: Which Way To Go?*, Australian CPA, July Pp 56-58.

Wall, K, Manus, A and Lowe, N. (2006) *Managing Municipal Infrastructure Assets.* Civil

Engineering, Vol.14(1) 29.

Water Authority Of Western Australia (1994) *Guidelines For Valuing And Assigning Economic*

Life To Water Authority Assets.

Water Services Sector Leadership Group Meeting - South Africa (June 2007) *Moving Towards Lifecycle Management Of Water Infrastructure.*



CONTENTS

ANNEXURES

INTRODUCTION	1
Acronyms	3
ANNEXURE A: LAND, BUILDINGS AND INVESTMENT PROPERTIES	5
Annexure A1: Land	7
Annexure A2: Buildings	13
Annexure A3: Investment Property	19
ANNEXURE B: MOVEABLE PPE	25
Annexure B: Moveable PPE	27
ANNEXURE C: INFRASTRUCTURE	31
Annexure C1: Roads and Bridges	35
Annexure C2: Water Supply and Sanitation	43
Annexure C3: Electricity Supply	49
ANNEXURE D: LEASES	51
Annexure D: Leases	53



INTRODUCTION

The purpose of the annexures to the Local Government Capital Asset Management Guideline (LGCAMG) is to provide practical assistance to municipalities on certain principles discussed in the LGCAMG.

Municipalities are required to refer to the LGCAMG for the detailed principles since only certain issues relating to specific asset classes are highlighted in these annexures.

The implementation of effective asset management starts with a reliable asset register. It is suggested municipalities focus resources first on the high-value assets as well as those that can be verified easily (“quick wins”). This is a phased approach in which assets are dealt with class by class. The disadvantage of such an approach is that the municipality might overlook certain areas and/or the implementation period might take a long time. It is therefore recommended that the municipality develop an implementation plan with specific deadlines. Adherence to this implementation plan should be monitored closely and on a regular basis, with due consideration being given to the effective dates and requirements of the Standards of GRAP.

A typical split of municipal assets, depending on the services to be delivered, is approximately:

Roads	27%
Water	20%
Sanitation	18%
Storm water	13%
Land	12%
Buildings	4%
Parks	1%
Vehicles and other PPE	5%

It is important to note that these percentages are approximate and not a standard for municipalities.



The process to be followed to establish reliable asset registers include:

1. Determine applicable legislation for the class of asset (if any).
2. Determine sector specific requirements and or support.
3. Refer to accounting policy and National Treasury guidance relating to asset classes and separately depreciable parts.
4. Decide on and/or determine the valuation model that will or should be applied to the specific asset class.
5. Identify and verify the assets.
6. Determine the expected useful life of each asset.
7. Perform condition, risk and criticality assessments.
8. Test the accuracy and source of information.
9. Take special considerations into account.
10. Value the assets.

The table on the following page is a list of the acronyms as used in the LGCAMG and in these annexures where applicable.



Acronyms

AMSC	Asset Management Steering Committee
ASB	Accounting Standards Board
BOOT	Build-own-operate-transfer
CFO	Chief Finance Officer
CRC	Current Replacement Cost
CSIR	Council for Scientific and Industrial Research
DME	Department of Minerals and Energy
DPLG	Department of Provincial and Local Government
DPW	Department of Public Works
DRC	Depreciated Replacement Cost
DWAF	Department of Water and Forestry Affairs
EDIH	Electrical Distribution Industry Holdings Pty Ltd
EUL	Expected Useful Life
GAAP	Generally Accepted Accounting Practice
GAMAP	Generally Accepted Municipal Accounting Practices
GIAMA	Government Immovable Asset Management Act
GIS	Geographical Information System
GPS	Global Positioning System
GRAP	Generally Recognised Accounting Practices
IAS	International Accounting Standards
IDP	Integrated Development Plan
IFRS	International Financial Reporting Standards
IIMM	International Infrastructure Management Manual
IMESA	Institute of Municipal Engineering of Southern Africa
IPSAS	International Public Sector Accounting Standards
LGCAMG	Local Government Capital Asset Management Guideline
MFMA	Municipal Finance Management Act, No. 56 of 2003
MPRA	Municipal Property Rates Act, No. 6 of 2004
MSA	Municipal Systems Act, No. 32 Of 2000
NDOT	National Department of Transport
NERSA	National Energy Regulator of South Africa
NIMS	National Infrastructure Maintenance Strategy
NT	National Treasury
OAG	Office of the Accountant-General
PFMA	Public Finance Management Act, No. 1 of 1999



PPE	Property, Plant & Equipment
PPP	Public Private Partnerships
REDs	Regional Electricity Distributors
RUL	Remaining Useful Life
SALGA	South African Local Government Association
SDBIP	Service Delivery and Budget Implementation Plan



ANNEXURE A: LAND, BUILDINGS AND INVESTMENT PROPERTY

**ANNEXURE A: LAND, BUILDINGS AND INVESTMENT
PROPERTIES**

Annexure A1: Land

Annexure A2: Buildings

Annexure A3: Investment Property



ANNEXURE A1: LAND

Annexure A1: Land

The valuation of municipal land should be aligned with and driven by the Municipality's implementation of the Municipal Property Rates Act. Land is the key municipal asset upon which other assets usually reside, e.g. buildings, infrastructure, and facilities. A verification of land assets could uncover surplus land assets that could be utilised for service delivery or be sold to facilitate improvement in service delivery.

Legislative references

- Municipal Property Rates Act 6 of 2004
- GRAP 17 – Property Plant & Equipment
- GRAP 12 – Inventories
- GRAP 16 – Investment Properties
- Sectional Titles Act, 1985
- The Deeds Registration Act, 1937

Sector support

- **DPLG** are the lead Department in the valuation of land because of the role they play in facilitating the implementation of the Municipal Property Rates Act.
- **DPW** is involved because of their development, together with the Council for Scientific and Industrial Research (CSIR), of a Valuation Model for immovable property, for use in national and provincial government. It is envisaged that this model will also be useful to local government and lead to consistency in valuation in all spheres of government.
- The **Department of Land Affairs** manages the deeds registration process.

Asset classes and separately depreciable parts

All municipal owned land should be registered in the "Register of Properties". No recognition threshold should be applied for land. This register will record land and buildings as one asset (property). For reporting purposes, a separation should be



made between land and buildings. This should be kept in mind when the valuation is done. It is important that a link between the land and the building/s situated on it be recorded for management purposes.

Valuation model applicable

The valuation model to be applied to non-inventory land at initial recognition is the cost or fair value. It is advisable to use the fair value model for property:

- The Municipal Property Rates Act uses market value as the basis for valuing property, and market value equals the fair value of the property.
- GRAP 17: PPE in the section “Valuation at Initial Recognition” allows the use of fair value in the absence of historical cost.
- The measurement at initial recognition for Investment Property is also cost or fair value.

Inventory land will be valued at the lower of cost and net realisable value (NRV), where NRV would be the fair value less cost of selling

Applying the valuation model

To apply the valuation model requires Land to be classified according to its intended purpose. That is:

- Property, Plant and Equipment (GRAP 17):
 - Land held for purposes such as administration and provision of services;
 - Valued at cost (if available) or fair value.
- Investment Property (GRAP 16)
 - Property held to earn rentals or capital appreciation;
 - Valued at cost (if available) or fair value.
- Land Inventories (GRAP 12)
 - Land held for distribution or being developed for sale or distribution;
 - Valued at the lower of cost and NRV.



ANNEXURE A1: LAND

Identification of municipal owned land

This will be through the identification of municipal owned land as registered with the South African Register of Deeds. A municipality should have a complete database of land within its boundaries for Property Rates purposes. A search of the deeds register should reveal:

- Land clearly identified as registered to the municipality, e.g. Mbombela Local Municipality;
- Land belonging to the municipality but incorrectly named, e.g. Mbombela Council;
- Land belonging to a former entity that was amalgamated into the new municipality, e.g. White River Transitional Local Council;
- Land that may belong to the municipality, e.g. Nelspruit;

This information will need to be examined and corrected. There may be a fee for correcting information with the “deeds registry”.

Other land may be identified from local knowledge which is not identified in the registry search. For example, land on which the Civic Building is situated may not be identified as Council Land. Therefore, a review of the land databases should be part of the identification process for other assets. For example, when looking at an electrical power station, check the ownership of the land it is constructed on.

Non-formalised land will be a problem because there will be no title deeds and land-use agreements may not exist. These will be identified from local knowledge and cross referenced by other asset identification processes. The municipality needs to do a risk analysis on the identified land issues and formalise the titles as required. For example, a municipal library built on traditional land. These non-formalised land parcels will not be included in the asset register because:

- the value of this land cannot be reliably measured;
- control is not determined; and
- it is not certain that the economic benefits will flow to the municipality.

Determination of intended use

All land without a defined use will be considered to be **investment property**. Although this will not affect the initial valuation, it has implication for reporting and



management. The use of the land will determine the classification and valuation model to be used. For example, land identified as being for distribution or development then distribution or sale will be classified and treated as **inventory**. Reference should be made to the Municipal Development Plans to ensure the correct classification.

The verification of other asset classes (buildings, infrastructure) will assist in the classification of land assets. The municipal valuer can confirm the use where any doubts exist.

Condition, risk and criticality assessment

The risk and criticality rating of land will be linked to its intended use.

Data accuracy and data source

The registration of title from the deeds registry can be considered accurate. Where there is a defined use evidenced by the infrastructure on the land then that source can be taken to be accurate.

Special considerations

Intangible land assets (servitudes)

There are instances when land is privately owned and the municipality has a servitude over it, e.g. pipe-line routes, rights of way, power-line easements, tunnel routes, etc. The value of these servitudes can vary dramatically and generally do not have an active market.

Valuing environmental reserves

Municipalities usually manage environmental or public reserves like beaches, estuaries, nature reserves, wetlands, etc. The question arises as to how to value these areas of land. From an **accounting perspective**, a municipality needs to apply the recognition criteria, in particular the criteria of “measured reliably” and “control”.



ANNEXURE A1: LAND

Site rehabilitation and restoration costs

GRAP 17 requires that the cost of an item of PPE should include:

“the initial estimate of the costs of dismantling and removing an item and restoring the site ...”

Such site restoration costs will include the cost of rehabilitating landfill sites, mine sites, certain sites used by infrastructure, etc. These site rehabilitation and restoration costs should be accounted for in accordance with GRAP 19 on “Provisions, Contingent Liabilities and Contingent Assets”. These costs should also be discounted (further discussed in the GRAP guidelines). For example, a land fill site will usually not need to be rehabilitated for a few decades.

Valuation process

The valuation process should be conducted in accordance with the Municipal Property Rates Act (MPRA), supporting regulations, Generally Recognised Valuation Practices, other relevant valuation requirements and guidelines issued by NT and other sector departments.

The Valuation Principles under MPRA include:

- generally recognised valuation practices;
- physical inspection is optional (*preferred option*);
- the possibility to use comparative and analytical reviews and systems such as aerial photography;
- the possibility to use “mass valuation” system or technique;
- the possibility to exclude certain immovable equipment and machinery;
- and
- the need to value each sectional-title unit.



ANNEXURE A2: BUILDINGS

Annexure A2: Buildings

The initial approach towards developing an asset register for buildings should be to recognise a building as a single asset where the cost of the components cannot be reliably separated from the cost of the building. The level of detail will increase where facilities management provide information allowing for further breakdown.

Legislative references

- GRAP 17 – Property Plant & Equipment
- GRAP 12 – Inventories
- GRAP 16 – Investment Properties

Sector support

- **DPW** are developing a Building Valuation Model with **CSIR**.

Asset classes and separately depreciable parts

For initial valuation purposes a building could be treated as a single asset. A building can be further disaggregated into separately depreciable parts, such as air-conditioning systems, roof, lifts (elevators), etc. The level of detail will depend upon a municipality's facilities management practices, facilities management systems and materiality issues.

In the case of a building complex, the municipality should split the complex into individual buildings. These individual buildings may be structures that are loosely joined to the complex but can stand and function alone even if other parts of the complex were to be demolished. These individual buildings should be separately recorded in the asset register.

A building that is an integral part of an infrastructure network should be included in the value of the network, e.g. the building of a water pump station. These buildings should be shown as a separately depreciable component(s) of that infrastructure complex.



Applicable valuation model

Buildings should be valued at cost or fair value.

The options for fair value are:

- the valuation determined from the Municipal Property Rates Act valuation process (a split between the land and buildings should be requested);
- the building valuation model or the income capitalisation model being developed by DPW; and
- the use of an evaluator to do a detailed valuation. (This will be costly but may be justified in the case of significant buildings.)

Applying the valuation model

Applying the valuation model requires buildings to be classified according to their intended purpose. The following table indicates which model should be used:

Asset classification	Intended purpose	Valued at
PPE (GRAP 17) (Annexure A2)	Held for purposes such as administration, provision of services, etc.	Cost or fair value
Investment property (GRAP 16) (Annexure A3)	Held to earn rentals or capital appreciation	Cost or fair value
Inventories (GRAP 12)	Held for distribution or being developed for sale or distribution	The lower of cost or net realisable value (NRV) (except where being distributed at a nominal charge)

The above criteria also apply to Land.

Identification of municipal-owned or municipal-controlled buildings

There are five main sources for obtaining information on buildings:

- Buildings commonly used for municipal purposes.



ANNEXURE A2: BUILDINGS

- The Municipal Property Rates Act process of verifying properties for valuation may uncover the existence of buildings on municipal land.
- Desk top surveys using aerial photography and other information may uncover the existence of buildings on municipal land,
- Information can be obtained from asset verification procedures,
- The verification of land title deeds may identify buildings not previously recorded as being situated on municipal land.

Condition, risk and criticality assessments

The table below illustrates how a basic-condition assessment can be developed for buildings by allocating percentages and ratings. When such a table is developed, the parameters should be defined in detail to ensure consistency in allocating the ratings to different buildings. The ratings should be applied by suitably qualified people with a good understanding of facilities management.

Condition Status	General description of status	Rating
Excellent (100-81%)	Accommodation has no apparent defects. Appearance is as new. Fractional cost on maintenance relating to value required to keep building in existing condition.	C5
Good (80-61%)	Accommodation exhibits superficial wear and tear, with minor defects and minor signs of deterioration to surface finishes. Minor expenditure on maintenance needed to upgrade building	C4
Fair (60-41%)	Accommodation is in average condition. Deteriorated surface finishes require attention, and a backlog of maintenance work exists. Condition of building causes inconvenience to users. Medium maintenance costs in relation to value of building required to upgrade building.	C3
Poor (40-21%)	Accommodation has deteriorated badly, with serious, visible structural problems. General condition is poor with eroded protective surfaces and a significant number of major defects. High risk to health and safety. High maintenance costs in relation to value of building implied as building needs to be refurbished and upgraded.	C2



Condition Status	General description of status	Rating
Very Poor (20-1%)	Age, lack of maintenance and structural defects make building unfit for occupation. Very high risk to health and safety and generally unsuitable for occupation. Extremely high maintenance costs in relation to value of property implied, as total collapse is imminent. Not worth upgrading.	C1

This Risk and Criticality analysis should be done in conjunction with the asset verification process.

Data accuracy and data source

Data accuracy or acceptability will depend upon its source. An independent valuation by a professional valuer will obviously carry more weight than a calculation by an accountant or engineer using a generic valuation model. Cost versus benefit should be taken into account in all decisions.

Special considerations

Special consideration should be given to the interior furnishing of a building which can include:

- interior walls,
- interior ceilings,
- floor covering, and
- internal plant and equipment, such as air conditioners.

The expenditure on the above interior furnishings should be recognised as an asset and depreciated over the expected life of the asset.

For example, the interior furnishings of a leased building can only be recognised over the lesser of:

- life of the lease, or
- useful life.



ANNEXURE A2: BUILDINGS

Where the above interior furnishings represent an enhancement to the building, they should be capitalised to the building and the building disaggregated into its components.

Valuation process

Where municipal-owned or controlled buildings are located on non-municipal land, the key question is who controls this building. Likewise, where buildings are not owned or controlled by a municipality but are situated on municipal owned land, control should be the deciding factor in the recognition of the building.

For example, where an external party builds a building on municipal land, if the municipality is able to control access to the building and determine the future use of that building, then that building should be deemed to be a municipal building for accounting purposes. If the municipality is uncertain about its control over the building then it should reconsider the recognition of the building. Agreements should be used to formalise and clarify the situation.

The steps to determine the value of municipal buildings include the following:

- determining recognition criteria;
- identifying municipal-owned or controlled buildings;
- determining intended use (desk-top analysis which needs to be checked against actual use); and
- valuing of municipal buildings.



ANNEXURE A3: INVESTMENT PROPERTY

Annexure A3: Investment Property

There are a number of circumstances in which entities may hold property to earn rental income and capital appreciation. For example, an entity may be established to manage a municipality's property portfolio on a commercial basis. In this case, the property held by the entity, unlike property held for resale in the ordinary course of operations, is defined as investment property. Other entities may also hold property for rental or capital appreciation and use the cash thus generated to finance their other (service-delivery) activities. For example, a university or local government may own a building for the purpose of leasing it on a commercial basis to external parties in order to generate funds, rather than to produce or supply goods and services. This property would also meet the definition of investment property.

Legislative references

- GRAP 16 – Investment Properties

Characteristics of investment property

Investment property is held in order to earn rental or for capital appreciation or both. Therefore, investment property generates cash flows independently of the other assets held by an entity. This distinguishes investment property from other land or buildings controlled by a municipality, including owner-occupied property.

The production or supply of goods and/or services (or the use of property for administrative purposes) can also generate cash flows. However, these properties will be reflected as PPE and not investment property. For example, a municipality may use a building to provide goods and services to recipients in return for full or partial cost recovery. In this case the building is held to facilitate the production of goods and services, and the cash flows are attributable not merely to the building, but also to other assets used in the production or supply process.



ANNEXURE A3: INVESTMENT PROPERTY

The following are examples of investment property:

- a) land held for long-term capital appreciation and not for short-term sale or use in the ordinary course of operations;
- b) land held for a currently undetermined future use (if a municipality has not determined that it will use the land either as owner-occupied property, or for short-term sale in the ordinary course of operations, the land is considered to be held for capital appreciation);
- c) a building owned by the municipality (or held by the municipality under a finance lease) and leased out under one or more operating leases on a commercial basis (for example, a municipality may own a building that it leases on a commercial basis to external parties); and
- d) a building that is vacant but is held to be leased out under one or more operating leases on a commercial basis to external parties.

Initial measurement

Investment property should be measured initially at its cost (transaction costs should be included in this initial measurement).

Where an investment property is acquired at no cost, or for a nominal cost, its cost is its fair value as at the date of acquisition. For example, an investment property may be received as gift or contributed to the entity (a national government may transfer a surplus office building, at no charge, to a municipality, which then leases it at a market rental or an investment property may be acquired through sequestration).

The cost of a purchased investment property comprises its purchase price and any directly attributable expenditure. Directly attributable expenditure includes, for example, professional fees for legal services, property transfer taxes and other transaction costs.

The cost of investment property is *not increased* by start-up costs (unless they are necessary to upgrade the property to the required working condition), initial operating losses incurred before the investment property achieves the planned level of occupancy or abnormal amounts of wasted material, labour or other resources incurred in the construction or development of the property.



ANNEXURE A3: INVESTMENT PROPERTY

If payment of investment property is deferred, its cost is the cash-price equivalent. The difference between this amount and the total payments made is recognised as interest expense over the period of credit.

Subsequent to initial recognition, the municipality may decide to adopt either the fair value model or the cost model.

Subsequent expenditure

Whether the cost or fair-value model is chosen, subsequent expenditure relating to an investment property should be added to the carrying amount of the investment property when it is probable that future economic benefits to or service potential for the entity over the remaining life of the investment property is in excess of the most recently assessed estimate of remaining useful life. All other subsequent expenditure should be recognised as an expense in respect of the period in which it is incurred.

Cost model

After initial recognition, an entity that chooses the cost model should measure all of its investment property using the cost model, that is, at cost less any accumulated depreciation and any accumulated impairment losses.

Fair value model

The fair value of investment property is the price at which the property could be exchanged between knowledgeable, willing parties in an arm's length transaction. The fair value of investment property is usually its market value. This estimate specifically excludes an estimated price inflated or deflated by special terms or circumstances such as atypical financing, sale and leaseback arrangements, special considerations or concessions granted by anyone associated with the sale.

An entity determines fair value without any deduction for transaction costs that the entity might incur on sale or other disposal.



ANNEXURE A3: INVESTMENT PROPERTY

The fair value of investment property should reflect the actual market conditions and circumstances as at the reporting date.

If an entity has previously measured an investment property at fair value, the entity should continue to measure the property at fair value until disposal (or until the property becomes owner-occupied property or the entity begins to develop the property for subsequent sale in the ordinary course of operations), even if comparable market transactions become less frequent or market prices become less readily available.

A gain or loss arising from a change in the fair value of investment property should be included in net surplus/deficit for the period in which it arises.

Transfers

Transfers to, or from, investment property should be made when, and only when, there is a change in use, evidenced by:

- a) commencement of owner-occupation, in the case of a transfer from investment property to owner-occupied property (PPE);
- b) commencement of development with a view to sale, in the case of a transfer from investment property to inventories;
- c) end of owner-occupation, in the case of a transfer from owner-occupied property (PPE) to investment property;
- d) commencement of an operating lease (on a commercial basis) to another party, in the case of a transfer from inventories (previously held for sale) to investment property; or
- e) end of construction or development, in the case of a transfer from PPE in the course of construction or development.

Valuation at date of change of use

Transfers between investment property, owner-occupied property and inventories will be valued as follows:

- Cost model: the transfer does not change the carrying amount of the property transferred for measurement or disclosure purposes.



ANNEXURE A3: INVESTMENT PROPERTY

- Fair value model: the deemed cost at transfer is the property's fair value at the date of change in use.

When an owner-occupied property becomes an investment property that will be carried at fair value, an entity continues to depreciate the property and to recognise any impairment losses that have occurred. The entity treats any difference at that date between the carrying amount of the property and its fair value in the same way as a PPE revaluation.

This means that:

- a) any resulting decrease in the carrying amount of the property is recognised in net surplus/deficit for the period. However, to the extent that an amount is included in revaluation surplus for that property, the decrease is charged against that revaluation surplus; and
- b) any resulting increase in the carrying amount is treated as follows:
 - To the extent that the increase reverses a previous impairment loss for that property, the increase is recognised in net surplus/deficit for the period. The amount recognised in net surplus/deficit for the period does not exceed the amount needed to restore the carrying amount to what the carrying amount would have been (net of depreciation) had no impairment loss been recognised.
 - Any remaining part of the increase is credited directly to net assets under the heading of revaluation surplus. On subsequent disposal of the investment property, the revaluation surplus included in net assets may be transferred to accumulated surpluses or deficits. The transfer from revaluation surplus to accumulated surpluses or deficits is not made through surplus or deficit for the current year.

Disposals

An investment property should be derecognised on disposal or when the investment property is permanently withdrawn from use and no future economic benefits or service potential are expected from its disposal. For example, a sink hole appears on the property.



ANNEXURE A3: INVESTMENT PROPERTY

Gains or losses arising from the retirement or disposal of investment property should be determined as the difference between the net disposal proceeds and the carrying amount of the asset. The gain or loss should be recognised in surplus or deficit.

Other considerations

- The useful life of investment property (building) will be based on the same policy as that accepted for other buildings (PPE).
- Component accounting policy should also be applied to investment property buildings.
- Fair value can be determined on the same basis as for other land and buildings.
- Basic condition assessments should be conducted using the same criteria/parameters as for other land and buildings.
- The same information as is provided for other land and buildings should be included in the asset register with an indication that the property is an investment property.



ANNEXURE B: MOVEABLE PPE

ANNEXURE B: MOVEABLE PPE



ANNEXURE B: MOVEABLE PPE

Annexure B: Moveable PPE

Movable capital assets form part of PPE and will include (among other things):

- vehicles,
- furniture,
- office equipment,
- computer equipment, and
- mobile plant

Legislative references

GRAP 17 – Property, Plant & Equipment

Sector support

There is no specific sector support for moveable assets; however principles to manage moveable PPE are dealt with in the LGCAMG and in this annexure.

Condition and risk assessment

The purpose of this condition assessment is to determine if a movable asset will achieve its estimated useful life. Where the assessment indicates that the remaining useful life will most likely not be achieved, a decision has to be taken on the type of intervention to be adopted.

The following table is an example of basic-condition assessment criteria:

Condition Status	General description of status	Rating
Excellent (100-81%)	The movable PPE have no apparent defects. Appearance is as new. No intervention needed.	1
Good (80-61%)	The movable PPE exhibit superficial wear and tear, with minor defects and minor signs of deterioration. Minor expenditure on maintenance needed.	2



ANNEXURE B: MOVEABLE PPE

Condition Status	General description of status	Rating
Fair (60-41%)	The movable PPE are in average condition and require substantial maintenance work.	3
Poor (40-21%)	The movable PPE have deteriorated badly, with serious visible problems. General condition is poor with a significant number of major defects. High maintenance cost and/or the movable PPE may need to be rehabilitated. Cost vs. benefits should be considered.	4
Very Poor (20-1%)	Moveable PPE deteriorated to a point where it is unfit for normal use. Extremely high maintenance costs will be incurred; replacement is the better option (cost vs. benefit).	5

Data accuracy and data source

Data accuracy or acceptability will depend upon its source. With moveable capital assets, location and custodian are important fields to keep updated at all times as this will ensure manageability of assets and reliability of the asset register.

Special considerations

Owing to their moveable nature, these assets may require a higher level of physical security.

Asset custodians should be held responsible and accountable for the safe custody of these assets. Where there are losses, proper investigation to determine negligence or accidental loss should be done in accordance with the municipality's loss control policy.



ANNEXURE B: MOVEABLE PPE

Portable and attractive items

Portable and attractive assets are to be tracked through the Asset Management System because they are prone to accidental or deliberate loss due to portability and attractiveness. Assets that are typically classified as portable and attractive items may include personal computers, laptop computers, video equipment, cameras etc.



ANNEXURE C: INFRASTRUCTURE

ANNEXURE C: INFRASTRUCTURE

Annexure C1: Roads and Bridges

Annexure C2: Water Supply and Sanitation

Annexure C3: Electricity Supply

**ANNEXURE C: INFRASTRUCTURE*****Annexure C: Infrastructure***

Municipalities are facing challenges where infrastructure management systems are not yet operational. To assist in the implementation of good asset management practices, specific guidance is given in the case of some infrastructure assets. It is expected that, as the infrastructure asset management processes improve within a municipality, the latter will develop a skilled and professional management team as well as its own municipal “norms and standards” and processes on how the municipality identifies, values and manages infrastructure.

Data accuracy will depend on the source. Sources that can be used will include engineering records, information obtained from the verification of land assets that may reveal unrecorded infrastructure assets, and discussion with experts in the relevant field, e.g. municipal engineers. Field inspections may be an expensive process due to the level of expertise required, health and safety restrictions (specifically related to visiting electrical installations), and the number and geographical distribution of sites to visit.

The useful lives of infrastructure are driven by a number of factors including:

- design standards,
- construction methods,
- materials used in the construction,
- maintenance practices,
- environment,
- local conditions,
- water quality (where applicable),
- terrain,
- weather,
- asset security and risk of abuse,
- etc.



ANNEXURE C: INFRASTRUCTURE

Estimation of useful lives is complicated owing to the inability to access underground assets or the fact that much of the technology may be new and has not as yet failed. In addition, developing new maintenance techniques may be able to prolong the life of some assets substantially. For example, relining technology is able to repair sewer pipelines doing away with the need to replace them. The life of the relining renewals is not certain given that the technology has only recently been developed and no failure has been recorded as yet.

The following infrastructure assets will be dealt with in more detail in this annexure:

Annexure C1: Roads and bridges

Annexure C2: Water supply and sanitation

Annexure C3: Electricity supply

The detail provided in respect of each network is limited to the specific approaches that should be followed in relation to the network concerned. Where the principles discussed are valid for all categories, they are only discussed under land (A1) and not repeated in the other sections, as this would not add additional value.



ANNEXURE C1: ROADS AND BRIDGES

Annexure C1: Roads and Bridges

One challenge facing municipalities is roads network management.

Legislative references

GRAP 17 – Property Plant & Equipment

National Land Transport Transition Act, 2000 (Act No. 22 of 2000)

Sector support

The National Department of Transport (NDOT) is the lead agency. NDOT are developing a Road Infrastructure Strategic Framework for South Africa that will eventually incorporate standards for identifying, recording, accounting for and managing South African road networks including those at municipal level. Until the NDOT guidelines are being developed, municipalities can use this guideline, which is based upon the DPLG Guidelines and the International Infrastructure Management Manual (IIMM).

Asset classes and separately depreciable parts

There are many conventions for disaggregating a municipality's road network. These different methods depend upon the level of sophistication and the extent of the data captured in a municipality's road management system. The following guidelines provide a basic introductory methodology.

There will be four different types of road assets. These are:

- roads,
- vehicle bridges,
- pedestrian bridges, and
- retaining walls.



ANNEXURE C1: ROADS AND BRIDGES

These road assets will be further subdivided in two ways:

- by length, e.g. a road or bridge;
- by layers, e.g. surface or base.

Example of length:

The maximum length of Potgieter Street could be 5 kilometres, measured from the intersection of Skinner Street (node 1) to Boom Street (node 2). (Nodes: the points where longitudinal measurements begin or end.) Very long roads should be divided into shorter distances for asset register identification and management purposes.

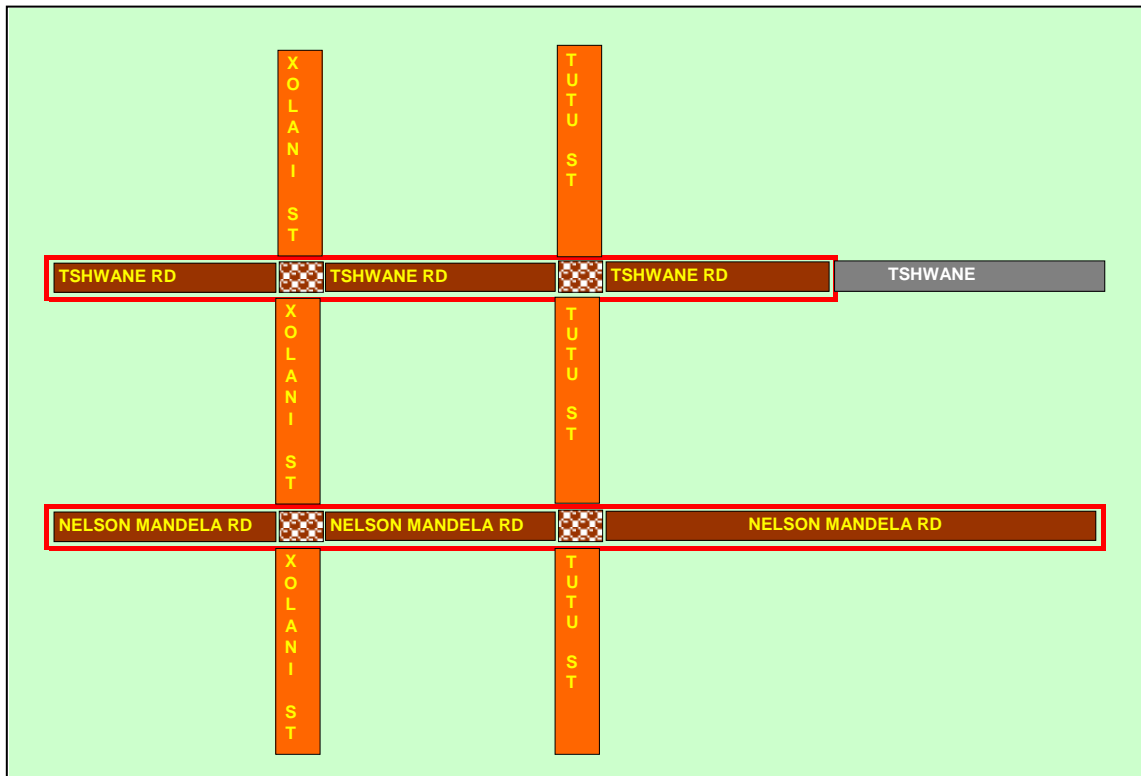
The road assets can be aggregated into systems for the purposes of developing the Integrated Development Plan (IDP), budget and area management of these assets, e.g. roads north of the municipality or all Hatfield roads, Tshwane.

The following is an example of how road lengths can be recorded:

- Tshwane Bridge is recorded as one asset.
- Tshwane Rd is recorded as one asset (with various sections measured between nodes) even though it contains intersections with Xolani St and Tutu St.
- Tutu St is similarly treated as one asset even though it contains intersections shared with Tshwane Rd and Nelson Mandela Rd.
- The value of the intersection portion of the roads should only be recorded as part of one of the roads. A policy decision should be made to determine which road will contain the intersection portion to ensure consistency of application.



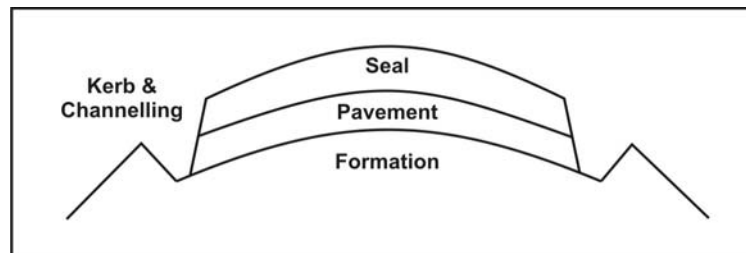
ANNEXURE C1: ROADS AND BRIDGES



A road can be subdivided into separately depreciable parts such as:

- formation,
- pavement,
- seal,
- kerb & channelling,
- road furniture (signs, traffic lights, etc.), and
- footpaths.

Standard separately depreciable parts for sealed roads (tar or concrete):





Valuation model applicable

Roads and bridges should be valued at cost or fair value as discussed in the section “Valuation at Initial Recognition”, where fair value is taken to be its depreciated replacement cost.

Example:

(The values were derived from the DPLG “Guidelines for Infrastructure Asset Management in Local Government”. Please refer to the details on table C-1 in those guidelines.)

Asset Category	Description	Unit	Rate R
Paved Roads - Surface Layer	All Roads	Area (m2)	55
Paved Roads - Structural Layer	Arterial	Area (m2)	330
	Distributor	Area (m2)	275
	Collector	Area (m2)	220
	Residential	Area (m2)	165
Unspecified Roads	All Roads	Area (m2)	28
Structures	Bridges - vehicular	Area (m2)	6,000
	Bridges -pedestrian	Area (m2)	6,000
	Retaining Walls	Area (m2)	1,650

Valuation process

The process to follow is similar to that for other assets and will include:

- defining the road network components (as above);
- defining the data to be collected;
- determining the equipment as well as the human resources needed;
- constructing a geographically-based data collection plan;
- collecting data and updating the asset register;
- assessing the risk and criticality; and
- applying the valuation model.



ANNEXURE C1: ROADS AND BRIDGES

Condition, risk and criticality assessment

A basic approach to condition assessment, specific to roads, should be developed and then consistently applied. The following example illustrates this point.

BRIDGES								
RANK	Estimated Remaining Life	Work Needed	CONDITION ASSESSED					
			Deck	Girders	Columns	Abutments	Railing	
1	very good	> 25yrs	minimal					
2	good	10-25 yrs	minor					
3	fair	2-10 yrs	major in 10 yrs					
4	poor	<2yrs	substantial					
5	very poor	Failing	immediate major work					
0	non-existent	Abandoned						
Assessment Weighting								
Total Assessment								

CRITERIA - CONCRETE BRIDGES	
Decks	Cracking, Expansion joint movements, rusting of bolts in expansion joints, concrete spalling
Girders	Cracking, reinforcement exposure
Columns	Cracking, reinforcement exposure, erosion if in water
Abutments	Erosion of batter
Railings	Rusting of steel rails, cracking of precast concrete barriers

CRITERIA - WOODEN BRIDGES	
Decks	Movement or loose planks, missing bolts, fractured planks, rotting
Girders	Fractures, Rotting, Fungal Damage
Columns	Fractures, Rotting, Fungal Damage
Abutments	Erosion of batter, walings
Railings	Rotting, rusting of held down bolts

The risk and criticality analysis should be assessed in conjunction with the asset verification process to ensure greater efficiency and the optimum use of human resources.

Roads in many localities can be assessed together; however, there will be certain roads that will require individual attention, e.g. critical assets such as the only road to a hospital or the only bridge across a river.

Special considerations

There are certain problems around determining road ownership between national, provincial, district and municipal roads. However, for the purposes of IDP, all roads need to be recorded and ownership identified so that responsibility for maintenance is clear. Any roads not allocated should be discussed in an appropriate forum.



Expected useful life

The parameters for the allocation of expected useful lives of roads are set out in the LGCAMG, section 5. Municipalities must select and apply a useful life for each asset (and separately depreciable parts where applicable) based on its experience with the asset class. Where the municipality is of the opinion that the parameter is not a fair presentation of the consumption of the asset, it should refer to the National Accountant-General in writing, together with a full motivation and suggested alternative. The Office of the Accountant-General (OAG) will evaluate the request and respond to it.

The useful lives of road infrastructure are driven by a number of factors including:

- road construction,
- materials used in the construction,
- road maintenance practices,
- traffic volumes,
- traffic types,
- environment,
- locality,
- terrain,
- surrounding water,
- weather,
- etc.

The accuracy of predicting “Expected Useful Lives” will improve as road maintenance practices are developed within the municipality. The calculations of useful lives are dependent upon good asset management practices, and the collection of detailed and reliable data.



ANNEXURE C1: ROADS AND BRIDGES

Capital vs expense decisions

An illustration of the application of the principles explained in the LGCAMG for roads is as follows:

Unformed roads: Costs to create these are treated as an expense as is the cost to re-clear them.

Formed roads: Formed roads without gravel but with some drainage earthworks are recognised as capital. Costs to maintain these roads are treated as an expense.

Gravel roads: Formed roads topped with gravel. The formation is recognised as capital. The gravel is recognised and depreciated over the expected time between re-gravelling. Other maintenance costs like re-grading are treated as an expense.

Sealed roads: High-capacity roads built to a higher standard of formation, compacted gravel and final seal. All the components required to build the sealed road are separated into the different layers (formation, gravel (pavement) and seal) and are recognised as capital. The layers are depreciated over different lives. For example it is expected that the seal will be replaced a few times before the pavement needs to be rebuilt, whereas the formation is expected to last much longer. Other maintenance work and the repair of pot holes, etc. are treated as maintenance.

Bridges: The components of these structures are illustrated under “Basic condition assessment” and should be depreciated over different lives where appropriate.



ANNEXURE C2: WATER SUPPLY AND SANITATION

Annexure C2: Water Supply and Sanitation

Another challenge is the management of water supply infrastructure assets.

Legislative references

- GRAP 17 – Property, Plant & Equipment
- Water Services Act, No. 108 of 1997
- National Water Act 1998, No. 108 of 1998

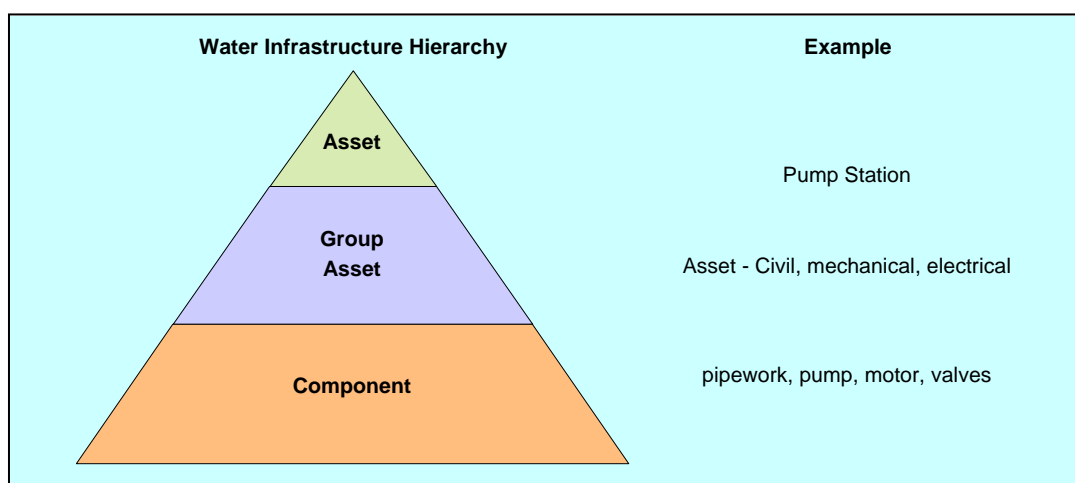
Sector support

The Department of Water Affairs (DWA) has developed a guide called “Verification and Valuation of Major Water Infrastructure Assets”. The guide provides the basis of how the water supply infrastructure should be valued.

The DWA guideline deals with the management of raw water assets at the national level.

Asset classes and separately depreciable parts

Asset classes (hierarchy) appropriate for water supply infrastructure is shown below. From this logical structure the level of service required by the DPLG Guideline can be linked to the “Asset Group”.





ANNEXURE C2: WATER SUPPLY AND SANITATION

Example from Appendix A

PUMP STATION		
LAND	Component Category	Recommended EUL
	Site property	
CIVIL	Component Category	Recommended EUL
	pump house	
MECHANICAL	Component Category	Recommended EUL
	pumps	15
	valves	15
	meters	15
ELECTRICAL	Component Category	Recommended EUL
	electric motors	15
	switchgear	10
	transformers & sub-stations	45
	power lines & cabling	50

Other classes of assets connected to the water supply network will be treated in accordance with the specific class of asset. For example:

- land,
- buildings (except for specialised buildings built for the purpose of housing infrastructure),
- small plant & equipment,
- vehicles, and
- computer equipment (not integrated into the infrastructure).

Valuation model applicable

The valuation model for water supply infrastructure will be the Depreciated Replacement Cost Valuation. The principles have been discussed in the LGCAMG, and are explained in more detail in the DWAF valuation guideline with specific reference to water.

Valuation components

The DWAF guideline equates valuation components to separately depreciable parts as defined in this guideline.



ANNEXURE C2: WATER SUPPLY AND SANITATION

Unit rates

The determination of the base unit rates is adequately explained in the DPLG guide and in more detail in the DWAF guideline in relation to water.

Establishing an asset register

The process is discussed in the LGCAMG. A summary has been included under the “Introduction” to the annexures.

The following additional steps should be performed for water supply and sanitation:

- Gather any schematic information.
 - These will be drawings of schemes, construction drawings, etc.
- Gather GIS information.
 - There should be useful supporting data, where this is available.

(The above will form part of step 5: “Identify and verify assets”)

Certain asset components may be difficult to identify without sampling excavations, for example, the material used in the construction of a pipeline or the exact dimensions thereof. This could be a very expensive exercise (especially in a large metro) and decisions should be based on a cost vs benefit analysis.

It could be a costly process for municipalities to compile an asset register to the level of detail required by the DWAF valuation model. A phased approach should be considered in consultation with National Treasury.

Condition, risk and criticality assessments

A Condition Grading Scale should be developed and used as in the case of other immovable assets. For this, as well as for the risk and criticality assessments, reference should be made to the specific details/requirements in the DWAF guideline.



ANNEXURE C2: WATER SUPPLY AND SANITATION

The tables below have been adapted from the IIMM for illustration purposes:

SANITATION RETICULATION CONDITION ASSESSMENT CRITERIA								
RANK	Estimated Remaining Life	Work Needed	CONDITION ASSESSED					
			Pipe Cracking	Joint Displacement	Invert Erosion	Debris / Settlement	Upstream Structure	Root Penetration
1 very good	> 25 yrs	minimal	Best	None	None	None	Excellent	None
2 good	10-25 yrs	minor	Fine	Appearing	Shallow scour	Silting apparent	Slight blemish	
3 fair	2-10 yrs	major in 10 yrs	Apparent	Open - no infiltration	Apparent	Some blockage, flow not retarded	Obvious blemish	Medium
4 poor	< 2 yrs	substantial	Extensive	Open & infiltration	Deep scour, not broken	Some blockage, flow retarded	Major blemish	
5 very poor	Failing	immediate major work	Failed	Failed	Broken through	Totally blocked	Failed/ Poor	Blocked
0 non-existent	Abandoned							

SANITATION CIVIL STRUCTURES CONDITION ASSESSMENT CRITERIA						
RANK	Estimated Remaining Life	Work Needed	CONDITION ASSESSED			
			Pipe Cracking	Joint Displacement	Invert Erosion	Debris / Settlement
1 very good	> 25 yrs	minimal	Sound physical condition. Asset likely to perform adequately without major works for 25 years or more.			
2 good	10-25 yrs	minor	Acceptable physical condition. Minimal short-term failure risk within 10 years.			
3 fair	2-10 yrs	major in 10 yrs	Significant deterioration evident. Failure unlikely in next 2 years but major work needed in the next 10 years. Minor components need replacing but still functions safely and adequately.			
4 poor	< 2 yrs	substantial in next 2 years	Failure likely in the short-term. Barely serviceable. No immediate health and safety risk but work required to prevent risks.			
5 very poor	Failing	immediate major work	Failed or failure imminent. Health and safety risk to public and operational personnel.			
0 non-existent	Abandoned		Asset Abandoned - No Longer Exists.			

SANITATION MECHANICAL & ELECTRICAL STRUCTURES CONDITION ASSESSMENT CRITERIA						
RANK	Estimated Remaining Life	Work Needed	CONDITION ASSESSED			
			Pipe Cracking	Joint Displacement	Invert Erosion	Debris / Settlement
1 very good	> 10 yrs	minimal	Sound physical condition. Asset likely to perform adequately without major works for 10 years or more.			
2 good	5-10 yrs	minor	Acceptable physical condition. Minimal short-term failure risk within 5-10 years.			
3 fair	2-5 yrs	major in 5 yrs	Functionally sound but showing some wear with minor failures and diminished efficiency. Minor components need replacing but still functions safely and adequately. Failure unlikely in 2 years but major replacements needed within 5 years.			
4 poor	< 2 yrs	substantial in next 2 years	Failure likely in the short-term. Barely serviceable. No immediate health and safety risk but work required to prevent risks.			
5 very poor	Failing	immediate major work	Failed or failure imminent. Health and safety risk to public and operational personnel.			
0 non-existent	Abandoned		Asset Abandoned - No Longer Exists.			



ANNEXURE C2: WATER SUPPLY AND SANITATION

Special considerations

Capital vs expense decisions

Examples of how the principles of capital vs. expense could be applied to water infrastructure:

Pipes:

- All partial pipes, valves or hydrant replacements are treated as maintenance.
- A significant extension of the local reticulation network would be treated as capital and added to the value of the network.
- The replacement or abandonment of a pipeline or reticulation network is treated as a disposal with the capitalisation of the new asset where applicable.
- Any work to improve the quality of the service provided (beyond its original design parameters), protection that enhances the pipeline or renewal or refurbishment of the pipeline will be recognised as an improvement, thus as capital.
- Inspections are an operational or maintenance cost.

Relining of bulk pipeline:

- The cost of relining will be recognised and added to the cost of the bulk pipeline.
- The life of the asset will be increased to reflect the remaining useful life of the relined asset.
- The relining may result in a change in effective capacity (no more leakage) of the bulk pipeline. This will change the current replacement cost calculation under the revaluation model.

Reservoirs:

- The replacement of a separately depreciable part will be treated as capital.
- Concrete patching, resealing and joint replacement will be treated as maintenance.



Water treatment works:

- The replacement of a separately depreciable part will be treated as capital.

Tunnels, river conveyances and boreholes:

- All expenditure is expected to be maintenance expenditure, but should be evaluated with reference to the recognition criteria.

Dams and weirs:

The renewal or refurbishment of a dam or weir that is expected to increase its life should be recognised over the useful life of that refurbishment. This could be desilting, refurbishing banks and renewing other structures. The life of the desilting work will depend on the rate of silting experienced in the dam. Expenditure will thus be recognised over the expected period before desilting will again be necessary.

The replacement of separately depreciable parts will be dealt with as for other assets. Other work will be treated as maintenance.

Other considerations

Determining age

Where no records are available accurately to establish the age of the infrastructure, the following can be considered:

- Visual examination may provide clues as to the date of construction.
- Checking development activity and development approvals may provide an indication of when those assets were constructed. (Including Council resolutions)
- The construction material or technology of some assets may give an indication of when they were constructed.
- Knowledge of the history of the development of a municipality may give an indication of when the associated assets were constructed.



ANNEXURE C3: ELECTRICITY SUPPLY

Annexure C3: Electricity Supply

A municipality’s electrical distribution network assets will be recognised according to specifications developed for the sector. A phased approach should be considered in consultation with National Treasury.

Legislative references

- GRAP 17 – Property Plant & Equipment
- Electricity Act 1987, No. 41 of 1987

Sector support

DME (Department of Minerals and Energy)

NERSA (National Energy Regulator of South Africa)

Asset classes and separately depreciable parts

For guidance on the breakdown of these assets into components/separately depreciable parts as well as their useful lives and values, the municipality should refer to these additional support guidelines.

The tables below are an illustration of the range of the asset classes, expected useful lives, as well as the replacement value calculated.

ASSET TYPES		EUL	
HV Transformers	1		50
HV Lines	2		50
HV Cables	3	PLIC	50
		XPLE	45
HV Substation Equipment	4		50
MV Transformer	5		45
MV Cables & Lines	6		45
MV Substation and Switch Gear	7		45
LV Network	8		50
Network Management	9		20
Consumer Meters	10	prepaid	15
		credit	30
Telemetry	11		20
Buildings	12		60
Generation	13		40



ANNEXURE C3: ELECTRICITY SUPPLY

Categories		Asset Type	Asset Lives	Replacement Value R000's
MVA	KV			
800 (Double Wind)	400/275/22	1	50	22,500
500 (Auto Wind)	400/132/22	1	50	20,000
315 (Double Wind)	400/88/22	1	50	17,000
etc	Etc	etc	etc	etc

Valuation model

To assist in the valuation, a set of spreadsheets populated with the relevant sector parameters, is available. The spreadsheets perform the relevant calculations for condition, valuation and accumulated depreciation.



ANNEXURE D: LEASES

ANNEXURE D: LEASES



ANNEXURE D: LEASES

Annexure D: Leases

Leasing an asset is an option in securing the use of an asset. Two types of lease agreements can be entered into, namely operating and finance leases.

In the case of an **operating lease**, the lessee acquires the right to use the asset for an agreed period of time in return for a series of payments. The payments are based on economic factors such as availability of the type of asset, the demand for the asset and the length of the lease period. The payments made will not approximate the fair value of the asset. At the end of the lease period the lessee does not acquire any title to the asset, and the ownership remains with the lessor. Where the lessee effects improvements to the leased asset (with the agreement of the lessor), the improvement should be amortised over the period of the lease contract.

A **finance lease** is another means of financing the acquisition of an asset. If this transaction is not reflected as such on the statement of financial position the assets utilised by the entity will be understated. In accounting terms this is called off-balance sheet financing. It will appear as if the entity is achieving better utilisation of its assets than it is actually achieving, and analysts will come to the conclusion that the entity is more effectively managed than it actually is. This is because the cost of the off-balance sheet assets is not reflected but the revenue/service delivery benefit is. Only once the cost of usage of all the assets in use is reflected, can management performance be evaluated.

In a finance lease, the substance and economic reality of the lease are that the lessee acquires the economic benefits of the use of the leased asset for the major part of its useful life, in return for entering into an obligation to pay for that right. The amount payable will approximate the fair value of the asset and the related finance charges. At the end of the term of the lease, the lessee has full control over the asset to deal with the asset in any way that is considered appropriate. Hence, the finance lease gives rise to items that satisfy the definition of an asset and is recognised as such in the lessee's statement of financial position.



ANNEXURE D: LEASES

The assets relating to finance leases should be incorporated in the asset register and flagged as being a finance lease asset. With an operating lease the asset leased is not part of the capital base of the entity, and the cost of usage is reflected in the statement of financial performance. The operating leased assets will not be included in the asset register of the municipality.

Leased assets, finance or operating, should be managed and maintained in the same way as any other asset of the same class. (However, the extent of maintenance in an operating lease will be set out in the terms of the agreement between the lessee and lessor.)

The GRAP 13 implementation guidelines provide more accounting detail.