



INFRASTRUCTURE ASSET MANAGEMENT WSSLG

19 June 2007



BACKGROUND

- WS are essential to healthy & effective domestic living, associated social services, business & commercial operations
- Sustaining WS delivery ***requires effective*** infrastructure asset management (*IAM*) ***that combines management, financial, engineering, economics & social practices and techniques, within a robust framework & management plan.***
- Available information ***indicates that few WS institutions are*** practicing proper management ***of their WS assets***

Key Problem Indicators



- **WWW are failing**
>30% need immediate intervention
± 3000 additional WWWW staff needed
- **Ageing infrastructure**
up to 50% of backlogs are replacements
no savings and poor borrowing capacity of WSAs



- **Service quality**
up to 57% of mun. have regular interruptions
70% response within 24hrs
- **Drinking water quality**
only about 60% of WSAs trust their water quality
58% WC and 41% GT use home filters



BACKGROUND Continued.....



- **Phase 1:** Desktop strategic study *on the state of WS infrastructure & the state of its management.*
- **Phase 2A:** A process of *identifying* key factors that drive these states, *and identifying elements to* ensure sound asset management.
- **Phase 2B:** *The identification of a* set of priority actions.



PHASE 3 -Current

- To define Asset Management and its Integrated Approach ***for the Water Services Sector, at all Levels*** (Macro, Management And Operational)
- ***To*** develop a Water Services Infrastructure Asset Management Strategy ***for the establishment of effective IAM in the WS sector.***
- ***The project will involve key sector partners such as DPLG, NT, DPW, SALGA, the water research commission and others.***



WHAT IS ASSET MANAGEMENT?



WHAT IS IAM?

Definition

Infrastructure asset management (IAM) is an *integrated* 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.



IMPLICATIONS OF THE DEFINITION PROVIDED

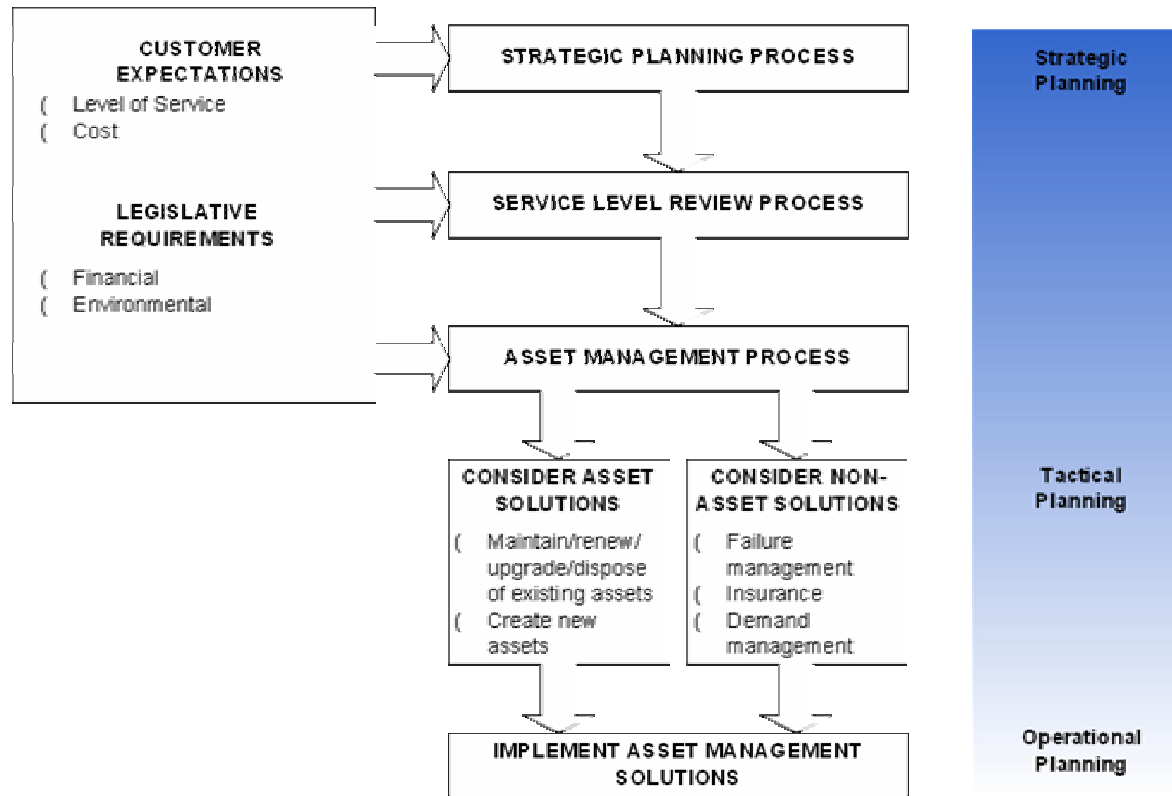
- Multidisciplinary practice that seeks integration
- to achieve certain outcomes
- There is a specific sustainability requirement, with an associated custodian role



COMMON MISCONCEPTIONS

- AM is about developing and maintaining asset registers
- AM is about maintaining infrastructure
- AM is an engineering set of practices
- AM is a financial set of practices
- AM is a operations set of practices

TOTAL ASSET MANAGEMENT PROCESS





SCOPE OF ELEMENTS



ASSET KNOWLEDGE

- Asset categorisation & hierarchy
- Location
- Physical attributes
- O&M data
- Condition data
- Performance/capacity
- Lifecycle cost data
- Asset age & lives

CURRENT ASSET MANAGEMENT PRACTICES

- Project Identification
- Contract monitoring & control
- Design/construction standards
- Asset handover
- Asset rationalisation
- Maintenance strategy
- O&M manual
- Emergency response plans

INFORMATION SYSTEMS

- Asset register
- Plans & records
- Maintenance management
- Capacity/utilisation models
- GIS
- Advanced modelling & analysis
- Project management
- Integration

STRATEGIC PLANNING PROCESSES

- Failure prediction
- Risk management
- Optimised decision making
- Service level reviews
- CAPEX evaluation long term
- Long term financial planning

AM PLAN

- Levels of service
- Demand forecasting/management
- Asset data, description
- Lifecycle strategies
- Financial forecasts
- Practice assessment & improvement

ORGANISATIONAL TACTICS

- IAM review & improvement
- Commercial tactics
- Corporate commitment
- AM roles & responsibilities
- Skills & teams
- Training



MACRO MODEL



MACRO APPROACH


- National Support Initiatives to Promote IAM
 - Guidance: Strategy, Policy & Tools to Manage IAM
 - Training: Educational Material
 - Implementation: Hand-on Technical Assistance
 - Continues improvement : Sharing of Information & Research

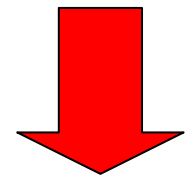


PREPARATION OF HOLISTIC STRATEGY

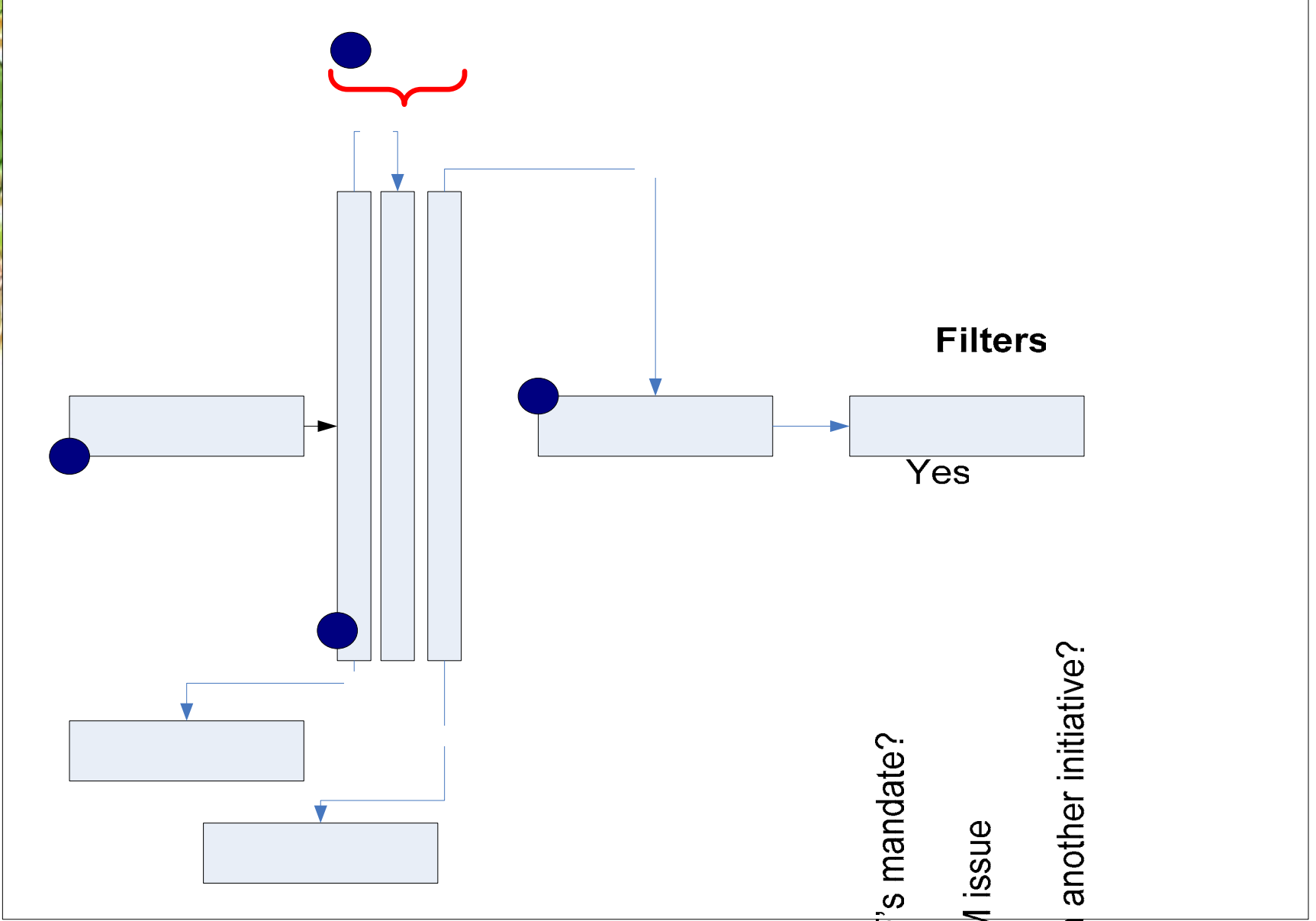
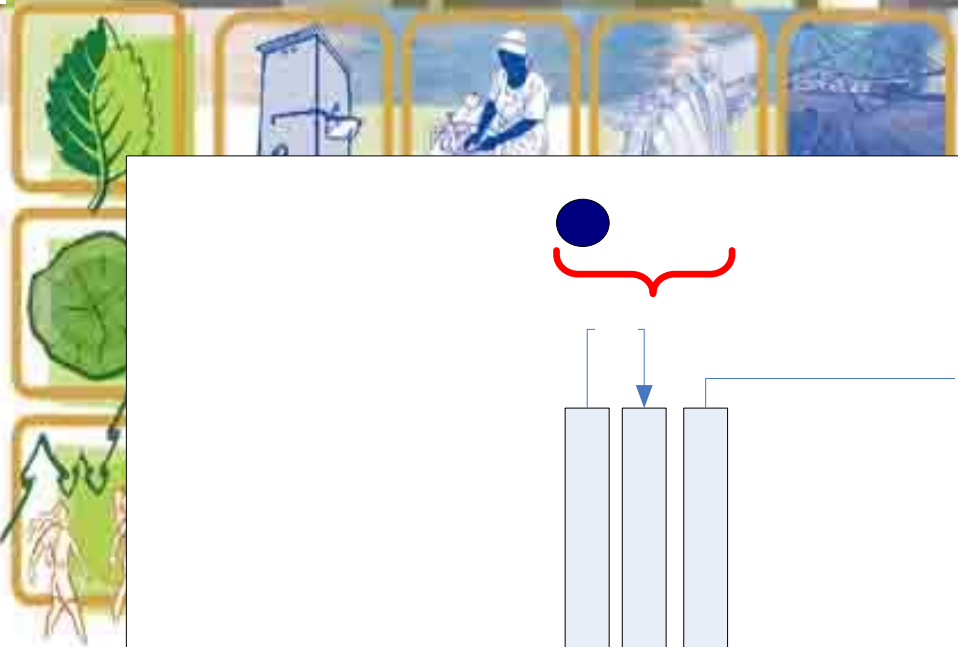


Package Actions into Action Plans

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- All actions by **Type** (e.g. financial action plan)
 - All actions by **Roll-player** (e.g. DPLG actions)
 - All actions by **Priority**
 - Crisis / emergency intervention
 - Short term /mitigating actions
 - Medium term / preventative actions
 - Longer term / sustainability actions



Framework for Water Services IAM Strategy
(how the sector will work together to achieve sustainable services)





PROGRESS TO DATE

- Engaged internal DWAF Directorates – feedback received – aligned projects with comments and strategic direction requirements within the water sector
- Engaged NT, DPLG, DBSA, Accounting General and reference group – Presentation on 3 May 07
- Conducted a working session on the 28 May 07 – Consolidated way forward – output drafting Water Services Infrastructure Asset Management Strategy
- Target Date for Draft Water Services Infrastructure Asset Management Strategy – end of July 07



WAY FORWARD

- ***Circulate Draft*** Water Services Infrastructure Asset Management Strategy – for comments during August 07
- Implement the actions from strategy and provide ongoing progress reports to stakeholders
- Have open and continuous dialog – All stakeholder & Role players.
- IAM is a Dynamic process- No quick fix!



THANK YOU