water affairs

Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA

WATER SERVICES REGULATION

RISK-ADJUSTED PERFORMANCE MEASUREMENT

RPMS
REGULATORY PERFORMANCE MEASUREMENT SYSTEM
WATER SERVICE REGULATION

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Begin with the goals in mind…

DWA

- Ensure that WSI's meet their legal obligations,
- protect consumers interests,
- & ensure environmentally sustainable services into the future.

WSIs

- Sustainable,
- efficient,
- and effective water and sanitation provision.

…to direct the new approach

- complex reporting by all;
- intense investigation into all aspects of the business;
- same level of assessment for all institutions regardless of historical level of compliance

to

- targeted information requests
- Check outcomes, not output
- Target high risk areas and institutions for in-depth investigation

RISK-BASED APPROACH

- This will be done through prescribing the baseline set of risks, and the minimum control measures in place to mitigate these risks. WSIs will need to:

Identify risks;

↓

document existing controls for these risks;

↓

evaluate the effectiveness of these controls; and

↓

implement improvements to mitigate significant risks.

LINKING PERFORMANCE & RISK

KPIs

Strategic metrics (numbers) that help to give an overall INDICATION of performance t

Very important to set targets for each KPI.

Will be used to benchmark

Strategic Objectives

For an organisation to meet its strategic objectives, it will need to consider historical performance and future risks simultaneously.

For each objective, there will be a few KPIs & a set of baseline risks & their minimum control measures.

Risks

Anything that threatens the ability of an institution to meet its objectives

Identification of risks and assessment of control measures helps to reduce/prevent problems

Risk-based regulation

- From a regulatory perspective, the DWA will move more towards

  → **risk-based regulation**, using a cumulative Risk Rating approach to prioritize regulatory action.

- Incorporation of this type of risk-based regulation approach will allow for the prioritization of regulatory interventions and focused regulatory attention where and when necessary by DWA.

Risk-based Regulation

Some Basic Principles

- *Resources must be concentrated on the areas that need them most*
- *Regulator must be efficient and effective in all activities*
- *No inspection should take place without a reason*
- *WSIs should not have to give unnecessary information, nor the same piece of information twice*
- *WSIs that persistently break regulations should face sanctions*

(Peterson, and Fensling 2011)

Expanding on success

Instead of measuring risk and rewarding incentives for only water quality management, this is now being expanded to encompass the management of the entire water business. From finance, to institutional, to service quality and technical elements.

Risk management context

- Risk management is the setting up of a process to identify the risks, and develop strategies to control/mitigate them.
- Risk assessment involves the mapping of potential risks against the measures of severity and likelihood in order to ascertain those areas that require critical intervention over those that are well mitigated/controlled.
- by adopting a holistic view of overall risk exposures and initiatives, it improved the executive's ability to make better decisions

→ **Enterprise Risk Management** (ERM)

Risk management legislation

- The government and public sector has clear legislation and framework for risk management, as outlined in the Public Sector Risk Management Framework (2010).
- *Sections 38(1)(a)(i) and 51 (1)(a)(i) of the Public Finance Management Act and Section Sections 62(1)(c)(i) and 95 (c)(i) of the Municipal Finance Management Act require that all government organisations have and "maintain effective, efficient and transparent systems of risk management.*

Proposed regulatory risk management framework

What will we measure?

- Standard risk management practice is to align performance targets with strategic objectives and then look at which risk areas fall within these strategic objectives.

- These objectives are :
  - Customer Satisfaction
  - Technical efficiency
  - Effective, efficient institution
  - Financially sustainable business

How will we measure?

- The WSIs will be required to report annually against the key performance indicators for each strategic objective.
- In addition to the indicators, a detailed assessment of a portion of the business will take place annually. The requirements will be provided prior to the audits.
- WSIs will need to present their prioritised risk assessment, proof of the control measures, and action plans for high risks at the DWA water services audits.
- In the future a web-based system will allow you to view results via interactive, colour-coded tool.
- The moderated risk profiles will be used by the DWA to prioritise provincial and national risks, as well as identify the highest risk municipalities in the country.

What will you need to do?

- Take each of the risks and map for consequence and severity to rate the final risk score
- Develop a final list of prioritised risks and their ratings, with the planned actions, responsibilities and time frames.
- Update the risk register and check performance against targets
- Check for correlations between low performance in a strategic objective and what the underlying risk controls are
- Adjust control measures to improve performance
- Submit the final risk register and an accompanying risk management report to DWA
- Make sure you have proof of your control measures (processes, plans, systems) to show the DWA assessors during the audit

Incremental Implementation

- All KPIs will be required to be reported against each year, but the requirements for year 2012 are still to be discussed
- The first two areas that will be assessed in detail in 2012 are **cost-reflective tariffs** and **contract management.**
- Following this, the focus will be on all the elements of two strategic objectives per annum. The plan is for Financial Sustainability and Technical Efficiency to be assessed together; rotated with Customer Satisfaction and Institutional Effectiveness the following year.

Implementation period?

- For planning and preparation purposes, the table below shows the intended assessment focus for the next 3 years.

2012	2013	2014
Selected KPIs	All KPIs	All KPIs
Cost-Reflective Tariffs Contract Management	Financial Viability Technical Efficiency	Customer Satisfaction Institutional Effectiveness

Developing the baseline set of risks and key strategic performance indicators

Strategic Objective: Financially Viable Business

What are some of the biggest risks to achieving your objective of financial viability ?

Low Liquidity (Short term sustainability)

Poor Debtor Collection (Long term sustainability)

Non-Cost reflective tariffs (Self-sustainability)

Dependence on external grants (self-sustainability)

Strategic Objective: Financially Viable Business

What are some of the best indicators of whether achieving your objective of financial viability ?

Liquidity (current assets – inventory) ÷ current liabilities

Revenue tied up in debtors (Consumer debt ÷ total income)

Shortfall of revenue raised in relation to expenditure
(Total revenue raised ÷ total expenditure)

Strategic Objective: Efficient Institution

What are some of the biggest risks to achieving your objective of institutional efficiency ?

Poor contract Management

Poor legal Framework

Fragmented approach to the water business

Insufficient skilled staff

Inadequate knowledge and information management

Strategic Objective: Efficient Institution

What are some of the best indicators of whether achieving your objective of being an effective institution ?

Contract compliance (% compliance to all contractual KPIs)

Staff turnover (No. of resignations as a % of total staff employed)

Staff education ratio (basic: certificate: degree)

Overtime (overtime hours as a % of total hours)

Staff per 1000 connections (Total staff ÷ (total connections ÷1000))

Kl of water per staff member (total Kl of water produced ÷total staff)

Vacancy (No. of vacant posts as a % of total approved posts)

Strategic Objective: Technical Efficiency

What are some of the biggest risks to NOT achieving your objective of technical efficiency ?

- Infrastructure failure
- Inadequate planning
- Poor record keeping
- High unauthorised connections
- High physical losses
- Water shortages in peak/emergency/failures
- Water resource shortage

Strategic Objective: Technical Efficiency

What are some of the best indicators of whether achieving your objective of being an effective institution ?

Non-Revenue Water (NRW) (NRW as a % of total System input Volume)
Residential meter coverage (no. of metered residential users as a % of total residential users)
Commercial, industrial, institutional meter coverage (No of metered non-residential customers as a % of total non-residential customers)
Planned vs unplanned maintenance (No of unplanned maintenance work instructions as a % of total maintenance work instructions)
Storage capacity (peak daily demand as a % of total storage capacity)
Water Resource availability (annual Demand as a % of total water available for use)

Strategic Objective: Customer Satisfaction

What are some of the biggest risks to achieving your objective of satisfied customers ?

Low willingness to pay

Change in expectations

Poor customer services

High unresolved customer complaints

Strategic Objective: Customer Satisfaction

What are best quantitative indicators to achieving your objective of satisfied customers ?

Payment Levels (income as a % of billed)

Query resolution (timeously resolved queries as a % of total queries)

2012 Risk Assessment…..

Only 2 areas required

Strategic Objective: Institutional Effectiveness

Critical Risk: Poor contractual management

Minimum Control measures
Appropriate contracts in place: Bulk contract Retail contract Operation and Maintenance / Management Contract Support Services Agent Contract Concession Contract Internal WSA - WSP Service Level Agreement **PENALTY:** Unsigned/expired/non-existent contract

Strategic Objective: Institutional Effectiveness

Critical Risk: Non-cost reflective tariffs

Minimum Control Measures
Tariff-cost Model Clear methodology for calculating tariffs Tariffs compliant with Section 10 regulations BONUS: clear method for tariff calculations that accounts for full cost of service
Rising block tariffs (requirements as per Section 10 regulations) Differentiation between customer categories: domestic; institutional; commercial and industrial **PENALTY:** No rising block tariffs

Strategic Objective: Institutional Effectiveness

Critical Risk: Non-cost reflective tariffs Continued..

Minimum Control Measures
Consumer Demand statistics Zonal metering Meter management (bulk and consumer) Records for: Billed metered; billed unmetered; unbilled metered; unbilled unmetered Total consumption per customer category Total annual demand for current and future years **BONUS:** Comprehensive, categorised billing records
Policies Tariff policy- as per section 74 of the Municipal systems Act (2000) Free basic Water and sanitation policy Indigent policy