Blue Drop 2011/2 Feedback

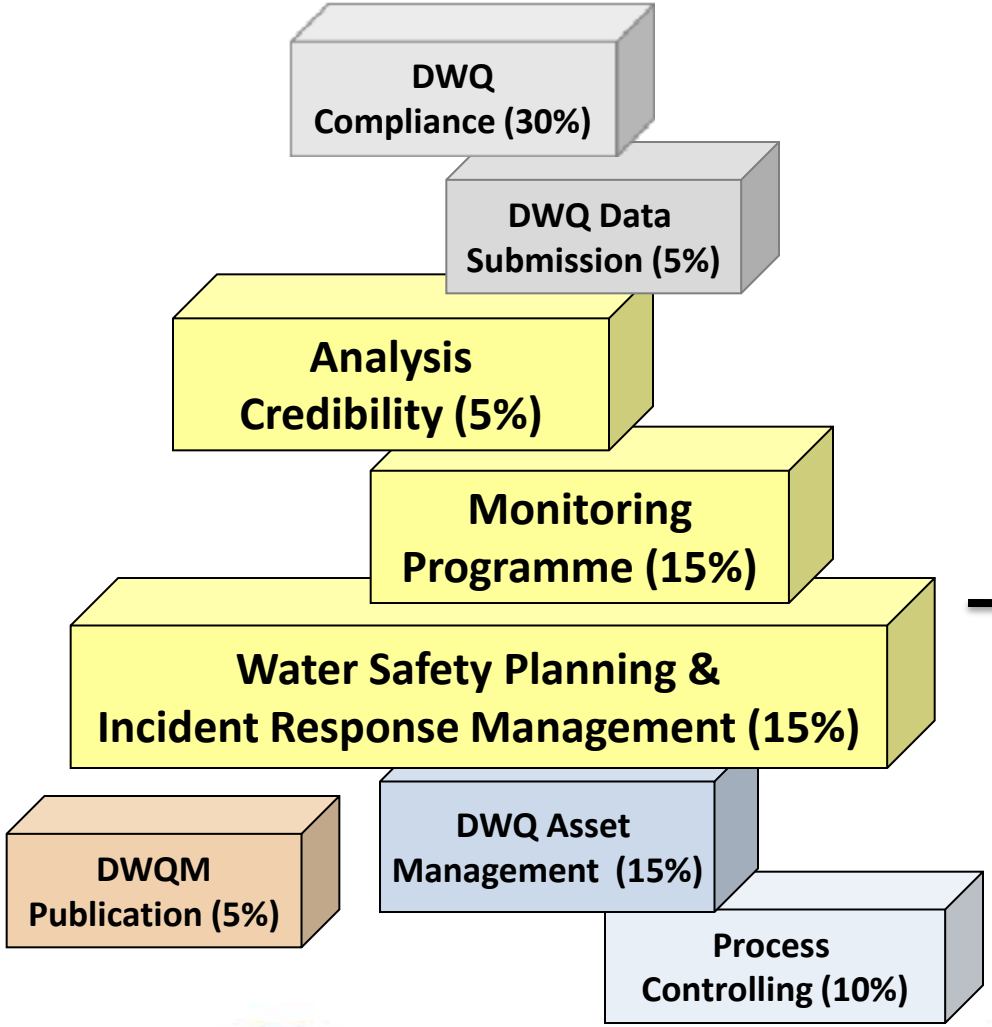
2012 - 13 Way Forward

blue drop
CERTIFICATION
drinking water quality
REGULATION

water affairs
Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA

Mariette Swart & Rodney Mashele
Department: Water Affairs
Directorate: Water Services Regulation

The evaluation criteria



blue drop CERTIFICATION
drinking water quality REGULATION

→ **KPA 1: Risk Management (30%)**

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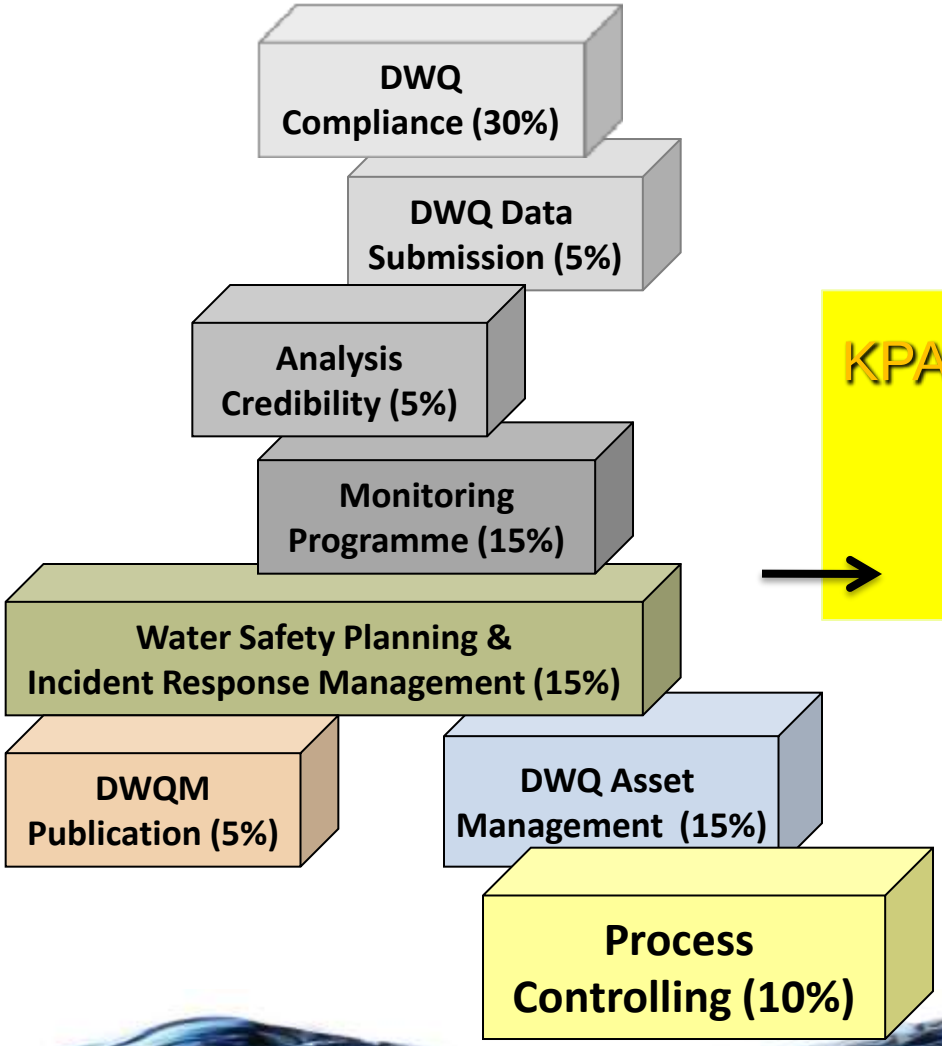
The evaluation criteria



KPA 2: Process Management & Control (15%)

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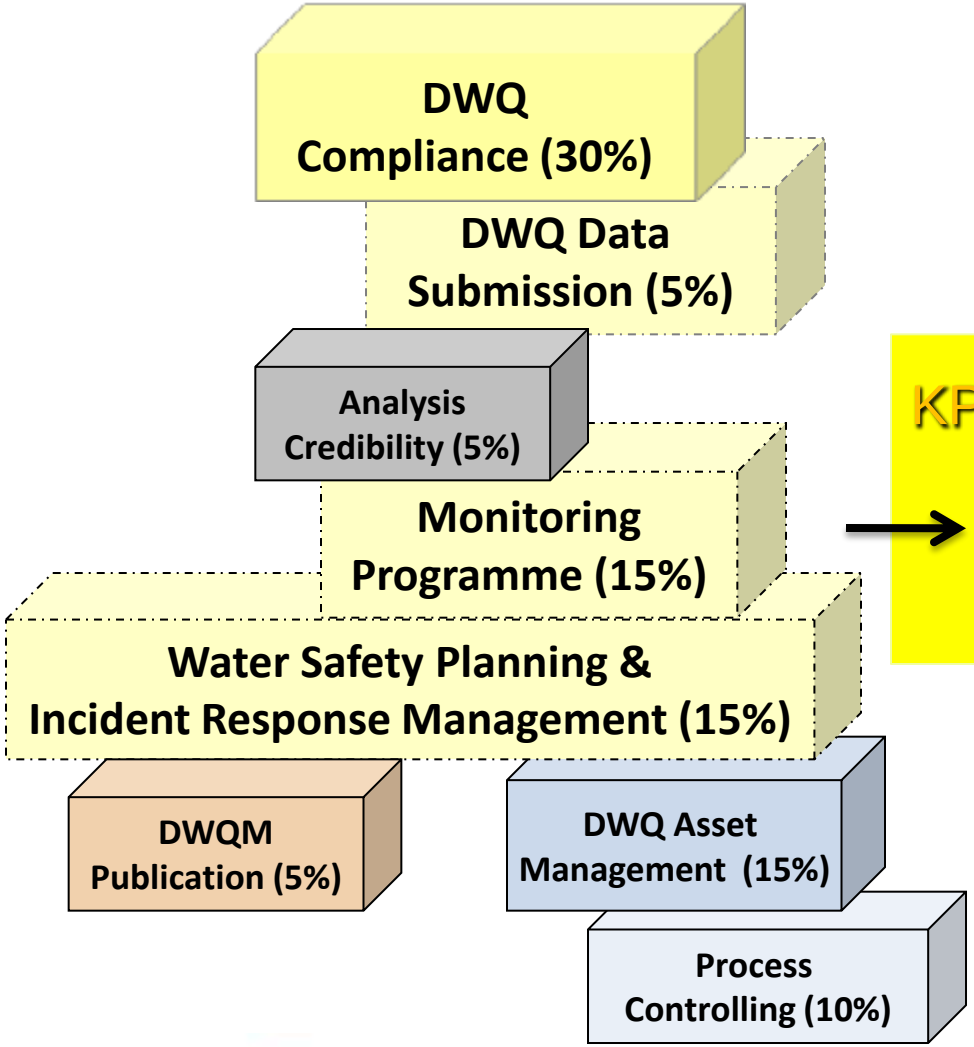

KPA 3: Drinking Water Quality Compliance (30%)

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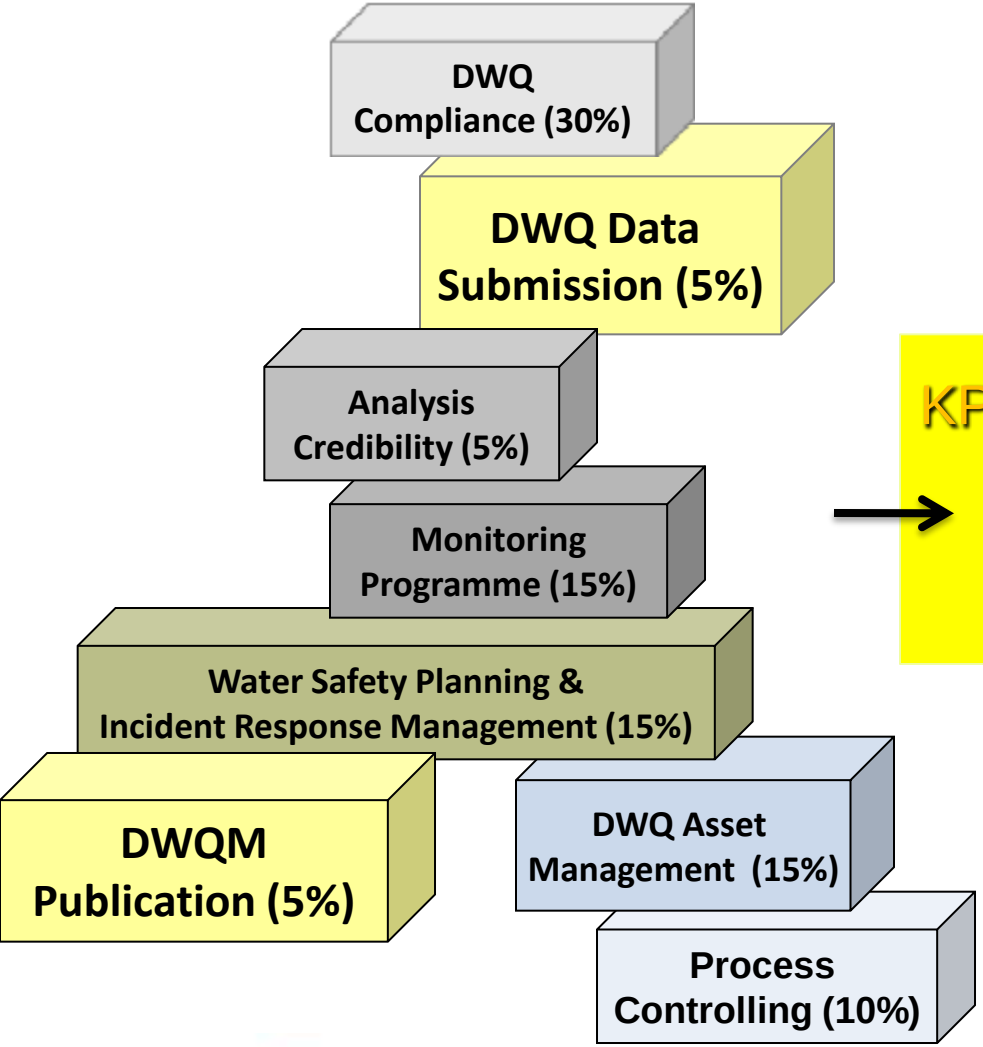

KPA 4: Management, Accountability & Local Regulation (10%)

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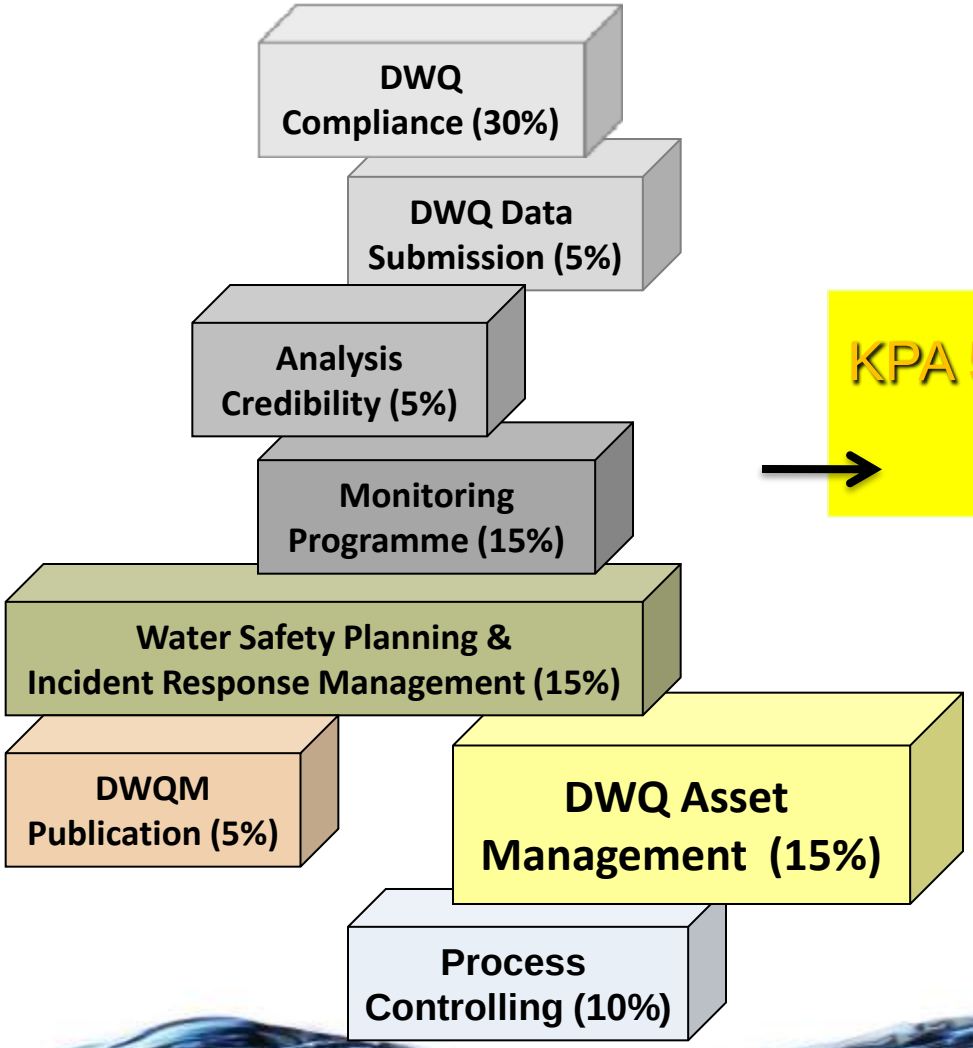

KPA 5: Asset Management (15%)

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Risk Management
Drinking Water Quality Compliance

Process Management & Control
Asset Management

Rodney

Management, Accountability & Local Regulation

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The picture . . .

KPA 1: **Risk Management (30%)**

Processes _ risks

KPA 2: **Process Management & Control (15%)**

“logbooks”

“Treatment operation”

The picture . . .

KPA 1: Risk Management (30%)

Processes _ risks

KPA 2: Process Management & Control (15%)

Operation

KPA 3: Drinking Water Quality Compliance (30%)

Product _ risks

KPA 4: Management, Accountability & Local Regulation (10%)

Management _ funds

KPA 5: Asset Management (15%)

"O&M manual"

Infrastructure -Funds _ sustainability

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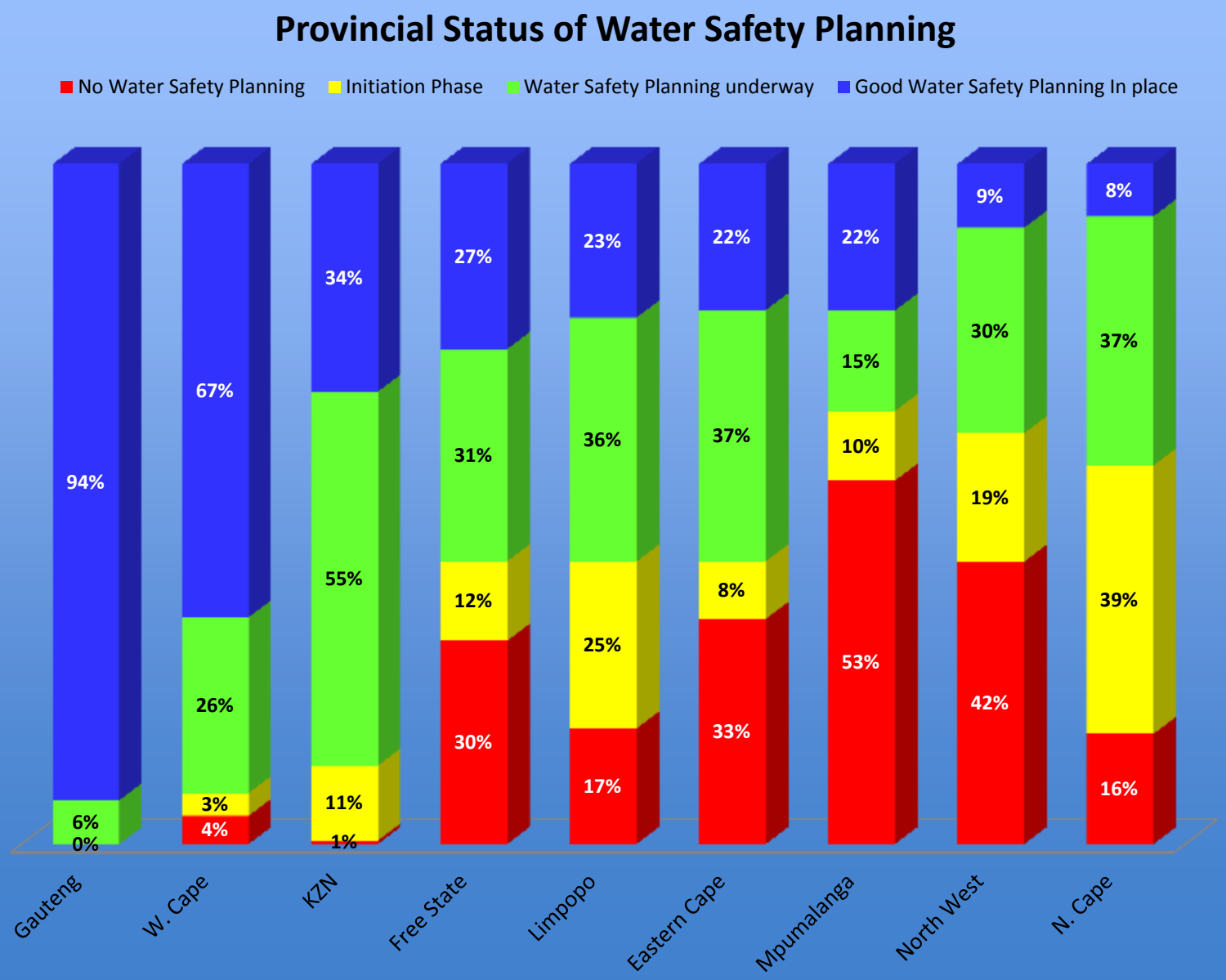
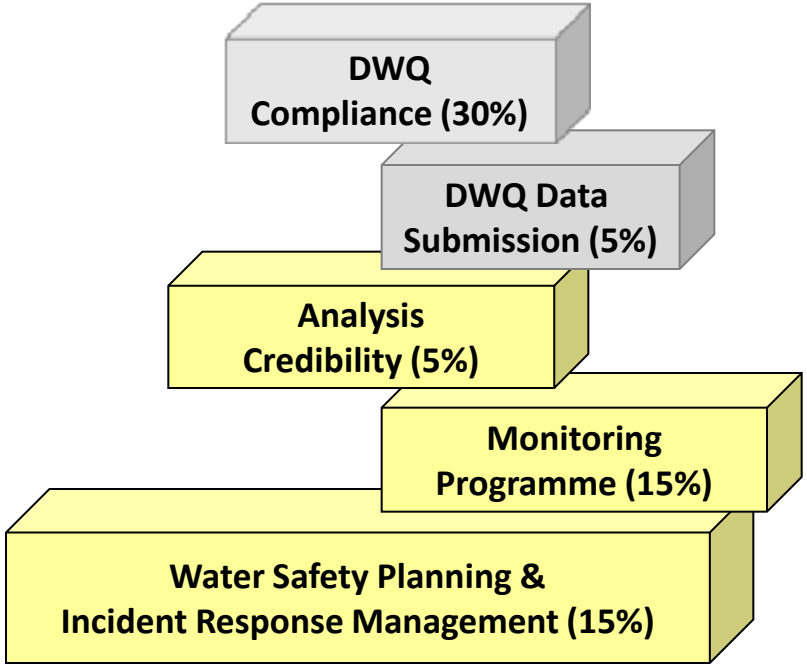
Water safety planning



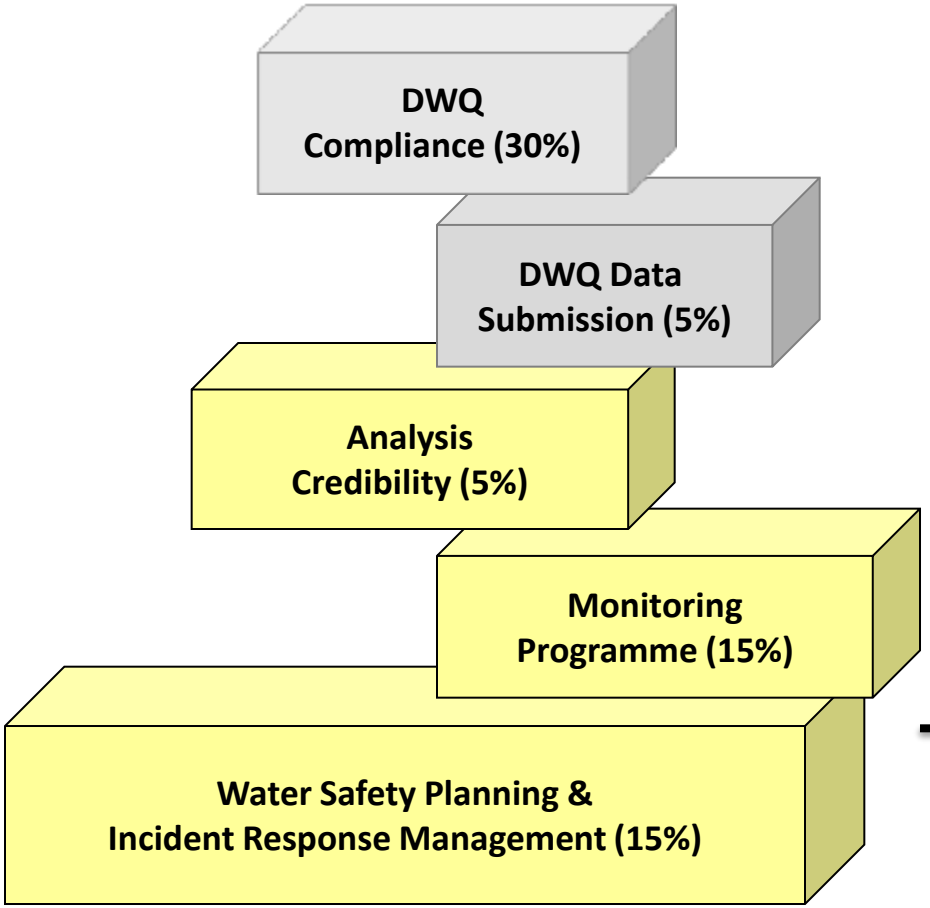
What has been found



→ **KPA 1: Risk Management (30%)**

- Risk assessment *but* no full SANS 241
- "Catchment to consumer" inventory
- Operational & Compliance monitoring programmes, on paper / registered BDS, *but* no actual data {monitoring compliance (%); *what should be monitored?*}
  - — *New* SANS monitoring programmes
  - — Operational monitoring (final water)
  - — Treatment targets, chlorine at point of use
- Incident management protocol addressing only certain risks – entries incident register (limited to entries following sample failure)

Linked processes

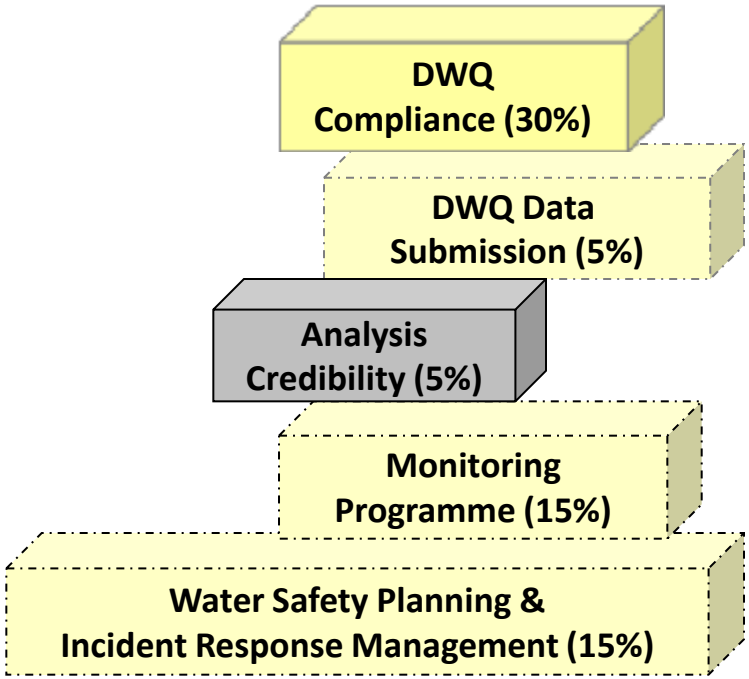


BDS

Lab strategy

LIMS
swartm@dwa.gov.za

What has been found



→ KPA 3: **Drinking Water Quality compliance (30%)**

- Compliance for 2011 measured against SANS 241: 2006
  - — Continued future reporting to public (2006), Own planning (*2011*) _ For health targets, refer to WHO Guidelines (8th ed) {*Compliance on BDS*}
  - — DWA to still announce time-frame for compliance against "new" SANS 241
- Data totals – statistically correct? 11 months?
  - — Nr of determinands monitored – failure follow-up monitoring
  - — Determinand compliance???
- ↑ *monitoring specific areas to maintain Blue Drop*
  - — Compulsory risk-determinand monitoring (SANS 241: 2011)

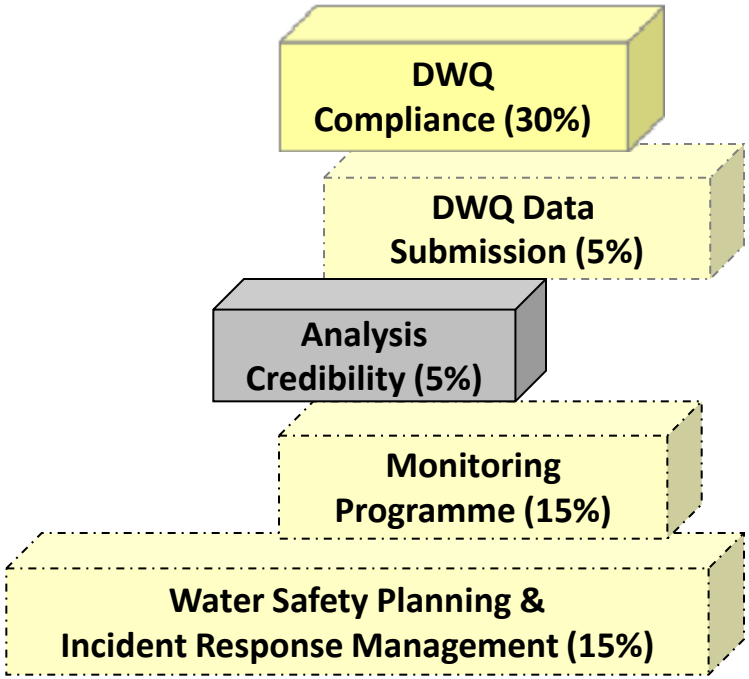
Determinands & frequency of analyses

Monitoring activity 1

Table 1 — Minimum monitoring for process indicators			
Determinand	**Minimum monitoring frequency**		
	Intake water	**Final water**	**Distribution system**
Conductivity or total dissolved solids	Daily	Daily	Not applicable
pH value	Daily	Once per shift	Fortnightly
Turbidity	Daily	Once per shift	Fortnightly
Disinfectant residuals	Not applicable	Once per shift	Fortnightly
E. coli (or faecal coliforms)	Not applicable	Weekly	Fortnightly but dependent on population served
Heterotrophic plate count	Not applicable	Weekly	Fortnightly
Treatment chemicals	Not applicable	Weekly	Fortnightly

- Disinfection sustained at value defined by institution
- If non-compliant, corrective action + follow-up sampling
- Reduced variability of groundwater quality, analyse monthly

What has been found



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  - — DWA to still announce time-frame for compliance against "new" SANS 241
- Data totals – statistically correct? 11 months? {↑ *monitoring to maintain Blue Drop*}
  - — Determinand compliance???
  - — Compulsory risk-determinand monitoring (SANS 241: 2011)
- Public notification significant failure / continued failures

Risk Management
Drinking Water Quality Compliance

Process Management & Control
Asset Management

Rodney

Management, Accountability & Local Regulation

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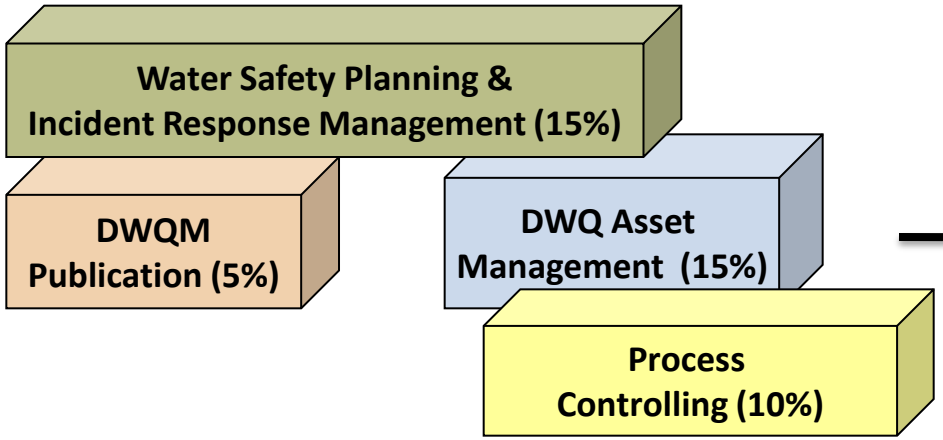
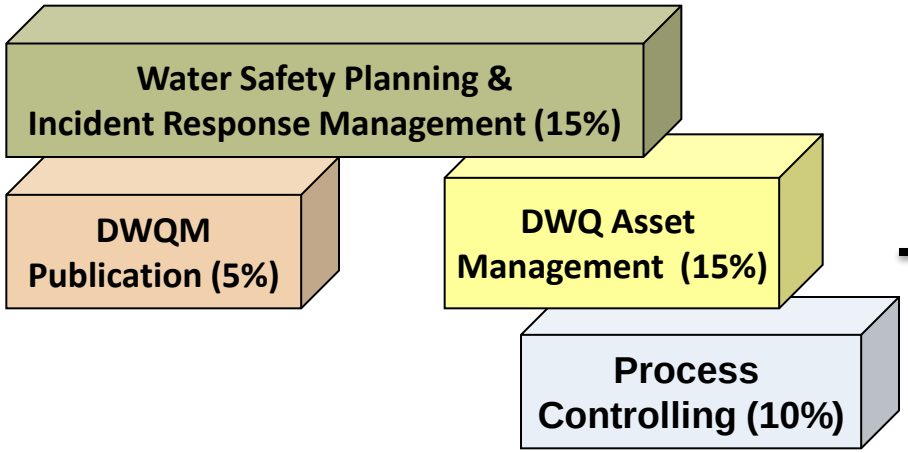
What has been found



→ KPA 2: **Process Management & Control (15%)**

- Risk assessment – which hazards needs to be "removed"?
- Registration / Classification that should be done on BDS; EVIDENCE; Process Control staff linked to specific treatment facilities (Regulation 2834 / 17)
- Evidence that logbooks are being used...

What has been found



→ KPA 5: **Asset Management (15%)**

- **Process optimisation audit** – address / implementation of findings
- Lack of O&M manuals
- Still awaiting proof of financial planning / expenditure
- Importance of flow monitoring _ knowing design / operating capacity of plants (volume of water receiving from Water Boards)

Blue Drop 2012 Performance

Blue Drop Assessment Analyses (National)					
Category	**2009**	**2010**	**2011**	**2012**	**Trend**
Nr Municipalities Audited	107	153	162	153	↓
Nr Water Systems Audited	402	787	914	931	↑
Nr Blue Drop Awards	**25**	**38**	**66**	**98**	↑
National Blue Drop Score	51.4%	67.2%	72.9%	87.6%	↑

Closing remarks from the 2012 Report

- Page 1 – “new drops”
- Warnings! – insufficient monitoring
- Action plans – progress reporting for remainder of 2012
  - Continue practices of excellence drinking water quality management
  - Continue planning processes to improve
  - The Department has to (*will*) react on *failures*

Key Risk Areas for 2013 Blue Drop Progress Reporting

1. The status of Water Safety Planning
   - The existence of an acceptable process
2. Skills compliance to Reg 17
   - Compliance levels to SANS 241
3. Actual Compliance
   - Compliance of DWQ (as well as Risk Index)

The Blue Drop Progress Assessment Tool (PAT)

- The detail of the Blue Drop PAT will be communicated at the next round of provincial workshops in July/ Aug 2012
- It will be on the same basis as the Green Drop PAT of 2012

Thank you for your attention

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