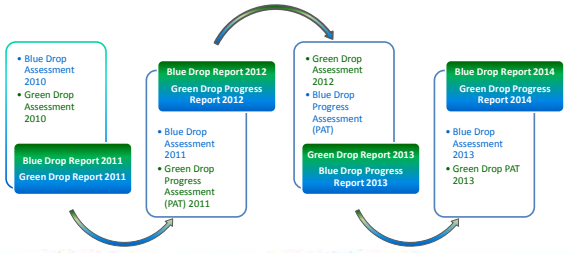
WATER SERVICES SYMPOSIUMS 2012

2013 Green Drop Requirements 2 - 5

Department of Water Affairs
Directorate: Water Services Regulation

Minister of Water Affairs (2011): *"…annual report back to sector and public to inform of status % progress in water services…"*



<---------***RPMS***---------->

2013 Green Drop CRITERIA

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KPA	Sub-requirement	Weight
1	Process Control, Maintenance and Management Skill	10%
2	Wastewater Monitoring Programme Efficacy	15%
3	Submission of Wastewater Quality Results	5%
4	Effluent quality compliance	30%
5	Wastewater Quality Risk Management	15%
6	Bylaws (Local Regulation)	5%
7	Wastewater Treatment Capacity	5%
8	Wastewater Asset Management	15%
		100%
	Bonuses	*+17% max*
	Penalties	*-5% of total*

REQUIREMENT 2
Wastewater Monitoring Programme Efficacy 15 %

- To ensure that adequate monitoring is taking place as a 1st step towards effective wastewater management.
- To promote management & planning based upon measurement /monitoring.
- To ensure enhanced credibility of analyses.
- To place renewed focus on the role of credibility laboratories.
- To improve the integrity of results (that forms the foundation of so many decisions made in the wastewater sector).
- To serve as basis for the procurement of credible laboratory service

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Key Performance Area	*Sub-Requirements*
Wastewater Monitoring Programme Efficacy 15%	(a) Details of **Operational Monitoring:** 1. Proof of Operational Monitoring sites, determinands and frequency 2. Samples must include: o *inflow,* o *outflow,* o *process flows,* o *industrial effluent,* o *sludge;* 3. Determinands monitored: as per Authorisation / as per best practice per technology type; 4. Frequency: as per Authorisation /as per best practice.
	(a) Details of **Compliance Monitoring**. 1. Sampling Sites as per Authorisation; 2. Determinands as per Authorisation; 3. Sampling frequency occurs as Authorisation Requirements *Note1: For zero-effluent treatment systems - still need to monitor for impact on catchment / environment (for both lined and unlined systems). Where oxidation ponds are producing effluent for irrigational purposes then General Limits apply.* *Note 2: A monitoring programme will not be sufficient to obtain full scores. Analyses results should proof implementation of the monitoring programme.*

2 cont...

Key Performance Area	*Sub-Requirements*
Wastewater Monitoring Programme Efficacy 15%	**(a) Laboratory** used: 1. Name lab for operational analysis (in-house or on-site) and lab for compliance analysis/checks (in-house or external) 2. Provide the turnaround in laboratory analysis (in hours: from time of submission to time of results dissemination)
	(a) Laboratory Credibility: 1. Certificate of **Accreditation** for applicable methods, *2. Or* Z-scores results following participation a recognised **Proficiency Testing Scheme** (–2 ≥ z-score ≥ 2 are unacceptable) *3. Or* Proof of Intra- and Inter-laboratory proficiency (quality assurance as prescribed in Standard Methods)
	(a) Explain how **monitoring results** are used to **amend/improve process controlling** Practical example: *[The assessor will select at random analytical parameter/s from the presented analytical results to present an audit question]*

REQUIREMENT 3
Submission of Wastewater Quality Results 5%

- Ensuring that the necessary information/data is submitted to the Department to allow for regulatory performance monitoring to be conducted.
- Essential as per the Section 62 of the Water Services Act (Act 108 of 1997)

"What you don't measure, you can't manage"

3

Submission of Wastewater Quality Results 5%	Proof of **data submission** to DWA (12 months) ▪ *12 months of data submitted to DWA **on the GDS*** ▪ *WSA must ensure that 12 months' sets of results are submitted and recorded on the GDS prior to the assessment. Note: **All compliance results' data required***
	PENALTY: Penalty will apply should wastewater results be available but not captured on GDS
	PENALTY: Penalty will apply should the Department find proof during / post assessment that the WSI is guilty of an offence as per Section 82 of the Water Services Act, by only submitting partial information (on GDS) in order to present a false impression of WWQ Performance and/or compliance.

REQUIREMENT 4
Effluent Quality Compliance 30%

- To give emphasis to the need for improved Effluent Quality Compliance
- To ensure that a wastewater treatment facility complies with the limits set in the Authorization;
- The most important requirements and weighted accordingly.

4	
Effluent Quality Compliance 30%	(a) Copy of **Authorisation** (License, GA or permit, detailing Effluent Quality Limits and Discharging standards(in case of oxidation ponds)) *Copy of applicable Authorisation, containing the specified effluent quality limits or standards for discharge to a water body or for irrigation or for other applications*
	(a) Effluent Quality CATEGORIES: (1) 90% microbiological compliance; (2) 90% chemical compliance; and (3) 90% physical compliance
	BONUS **(a) A practical Green Drop Improvement Plan (GDIP) in place – with baseline (current) score, tasks, responsible person, completion date, budget, target GDC score;** **(b) Implementation evidence and proof of management of process**
	PENALTY **(a)Sludge treatment not managed / monitored (Monitoring records must be produced).** **(b)In cases of ponds systems, provide schedule for desludging of system**

REQUIREMENT 5
Wastewater Quality Risk Management 15 %

- To identify hazards and risks
- To developed mitigation or corrective actions
- To prioritise the highest risks which would then guide where resources would be allocated first and foremost
- To mitigate risks over time whereby a steady reduction or abatement in risk values could be measured as indication that the risks are moving lower and the compliance improve as results

5	**Wastewater Quality Risk Management 15%**	(a) A practical and site specific Wastewater Risk Abatement Plan (W2RAP) is in place which identify and prioritise risks, with measures to mitigate inefficiencies/inadequacies that result in non-compliance (b) Implementation evidence and proof of management commitment
		(b) Provide **evidence of implementation** of Protocol • Wastewater Quality Failure Incident and Sewer Spillage Incident register
		(e) Proof of a documented **Wastewater Incident Management Protocol** ▪ Protocol to specify alert levels, response times, required actions, roles & responsibilities and communication measures/vehicles • NB. Include Pump station failure and sewer collector system spillages
		BONUS: WSI is able to provide DWA with Energy Demand Projections and Consumption figures for the specific Wastewater Treatment Works.

HINTS AND TIPS

- Each WSA should have it's own W2RAP in place – does not help to use other WSA's WRAP.

HINTS AND TIPS

- Verify current information on wastewater treatment facilities resorting under their areas of jurisdiction
- Register information on monitoring programmes, laboratories and analyses methods used by the municipality
- Submit all compliance results in line with the authorisation requirements according to Section 62 (Water Services Act) principles
- Management Commitment (Team Work = Enthusiusm), GDIP, Pursue Registration (Water Use) /Authorisation (NWA), Cross Pollination.

Continue.....

- Ensure adequate Municipal/WSP representation (involve PCs in your business) during assessments. An internal Green Drop Committee was found to be best practice.
- Monitor and Manage Effluent Quality compliance& Treatment efficacy throughout the year.

Continue.....

- Team work spirit and commitment from Politicians can play a measure role.

THANK YOU!

BEFORE AND AFTER A GREEN DROP ASSESSMENT

Go to your Destiny: 2012/13 GD