DWQ Conference – August 2007, Sun City

Electronic Water Quality Management System (eWQMS) Updates

IMESA

Presentation Roadmap…

1. Current eWQMS development initiatives
   - Dashboard
   - Overview
   - Analysis
   - Reports
2. Other supportive initiatives
3. Way forward

1. Current eWQMS Development Initiatives

eWQMS New Developments…

- Constant development and incremental improvement of eWQMS
- Based on feedback from WSAs, DWAF and other sector partners
- New features/functions will be added across eWQMS
- Changes will be implemented for:
  - Management Dashboard
  - Overview
  - Analysis (Tables and Graphs)
  - Automatic Summary Report
  - Communications (send out e-mails/newsletters/etc)

1.1 Management Dashboard (Single Sample Site Assessment)

…

Management Dashboard…

Stellenbosch Municipality Water Quality Management System - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://www.wqms.co.za/dashboard?st=1&mi=1&month=0

Customize Links Free Hotmail Windows Marketplace Windows Media Windows

Stellenbosch Municipality — Water Quality Management Syste

Drinking Water | water quality | infrastructure | risk profile | administration | information | logout

water quality

- dashboard — management dashboard
- overview — compliance overview
- reports — official monthly reports
- analysis — advanced data analysis
- data entry — add new sample analysis data
- import data — import sample points

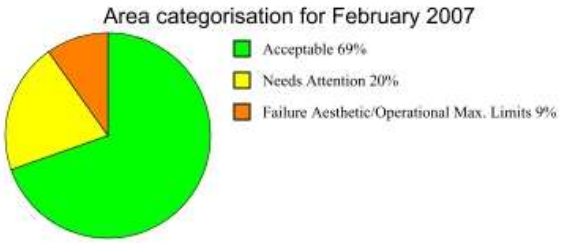
Drinking Water Management Dashboard

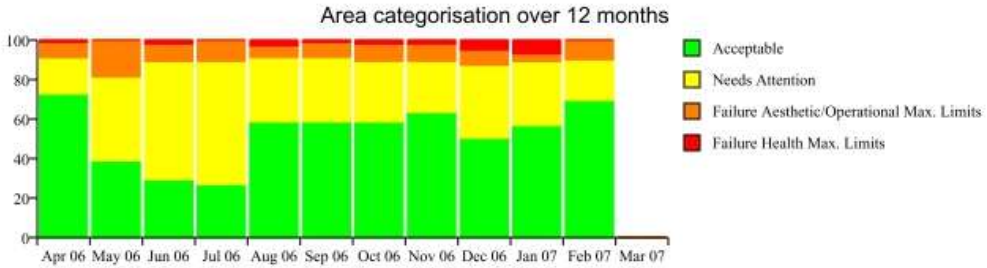
Stellenbosch Municipality

Area Categorisation for February 2007

Feb 2007 :: Jan 2007 :: Dec 2006 :: Nov 2006 :: Oct 2006 :: Sep 2006 :: Aug 2006 :: Jul 2006 :: Jun 2006 :: May 2006 :: Apr 2006 :: Mar 2006

Acceptable (Green):	**71** sample points or **69%** of monitored sample points (details).
Needs Attention (Yellow):	**21** sample points or **20%** of monitored sample points (details).
Failure Aesthetic/Operational Max. Limits (Orange):	**10** sample points or **9%** of monitored sample points (details).
Overall	**102** sample points monitored





Sample points are categorised as follows:

Green: All parameters monitored satisfy the following limits:

- SANS 241-2005 Table 1 column 4 (microbiological safety requirements – 4% of samples max.) and/or
- SANS 241-2005 Table 2 column 3 (Class I – recommended operational limit)

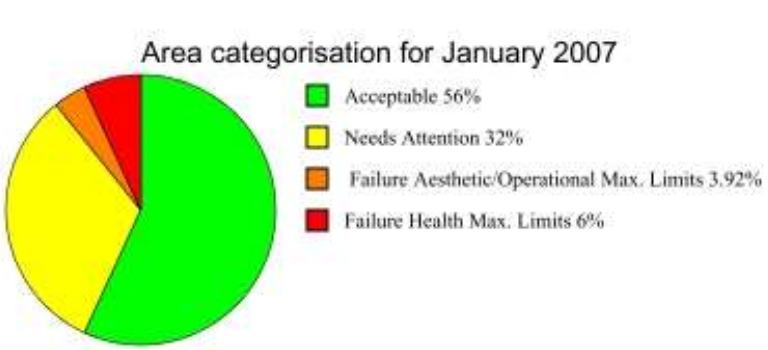
Drinking Water Management Dashboard

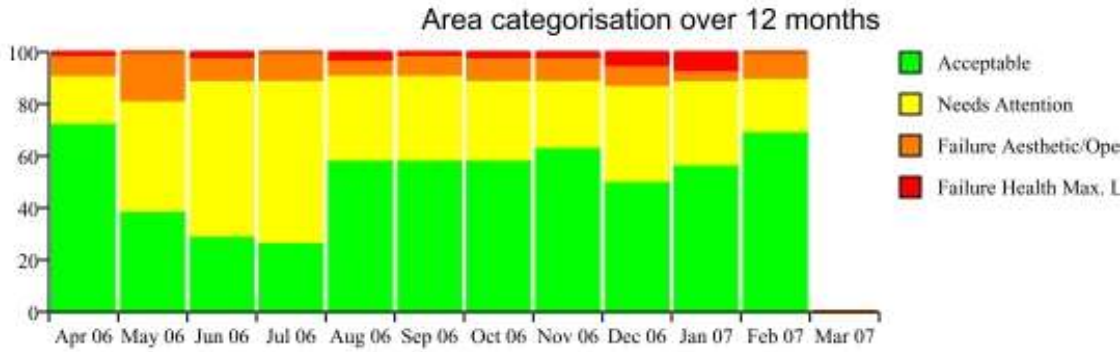
Stellenbosch Municipality

Area Categorisation for January 2007

Feb 2007 :: **Jan 2007** :: Dec 2006 :: Nov 2006 :: Oct 2006 :: Sep 2006 :: Aug 2006 :: Jul 2006 :: Jun 2006 :: May 2006 :: Apr 2006 :: Mar 2006

Acceptable (Green):	**58** sample points or **56%** of monitored sample points (details).
Needs Attention (Yellow):	**33** sample points or **32%** of monitored sample points (details).
Failure Aesthetic/Operational Max. Limits (Orange):	**4** sample points or **3.92%** of monitored sample points (details).
Failure Health Max. Limits (Red):	**7** sample points or **6%** of monitored sample points (details).
Overall	**102** sample points monitored





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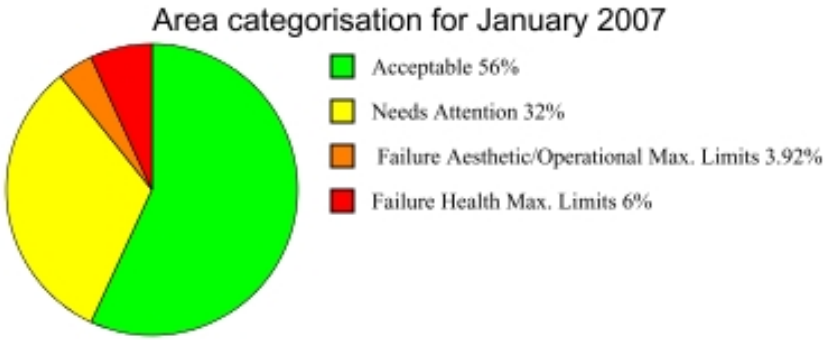
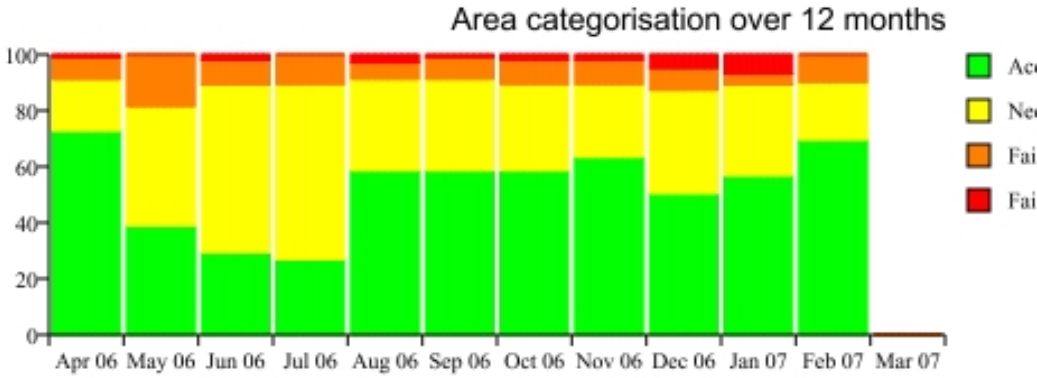
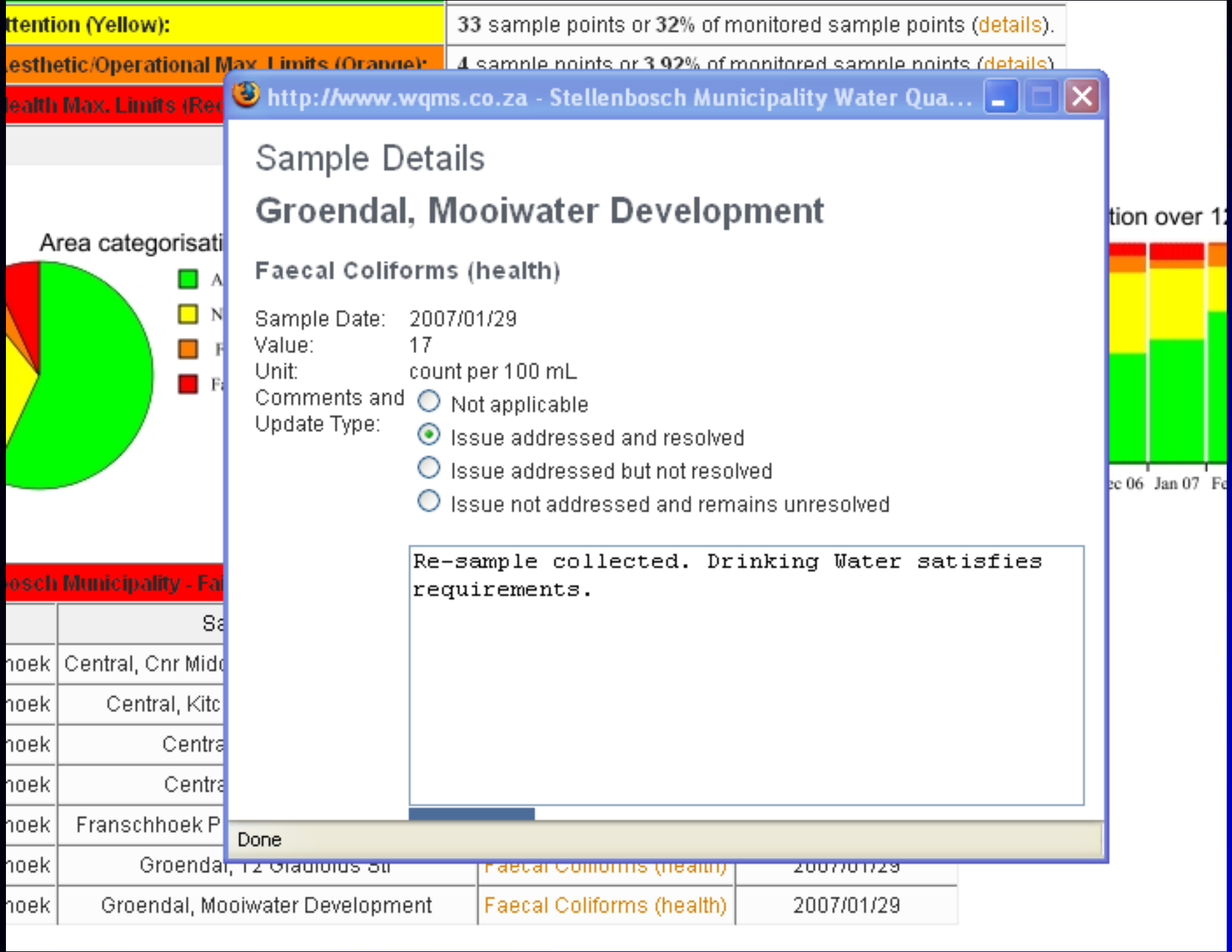
Overall	**102** sample points monitored



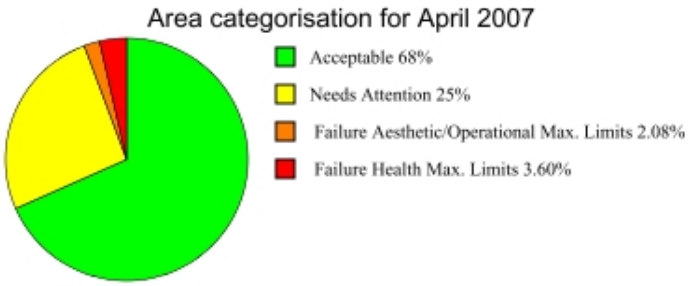


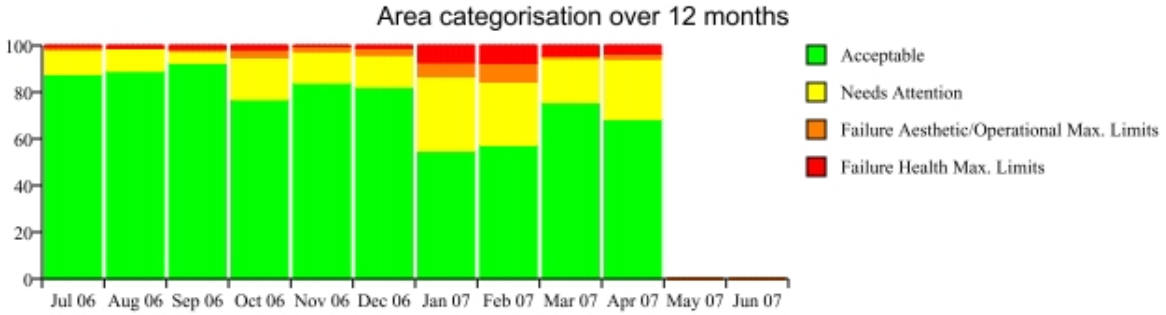
Details

Stellenbosch Municipality - Failure Health Max. Limits (Red): January 2007			
Area	Sample Point	Determinant	Date Failure Occurred
Franschhoek	Central, Cnr Middagkrans and Le Cabriere	Faecal Coliforms (health)	2007/01/29
Franschhoek	Central, Kitchen, Boarding School	Faecal Coliforms (health)	2007/01/29
Franschhoek	Central, P Jordaan Str	Faecal Coliforms (health)	2007/01/29
Franschhoek	Central, SPAR Centre	Faecal Coliforms (health)	2007/01/29
Franschhoek	Franschhoek Pass, Bagatelle Reservoir	Faecal Coliforms (health)	2007/01/29
Franschhoek	Groendal, 12 Gladiolus Str	Faecal Coliforms (health)	2007/01/29
Franschhoek	Groendal, Mooiwater Development	Faecal Coliforms (health)	2007/01/29


ttention (Yellow):
33 sample points or 32% of monitored sample points (details).
esthetic/Operational Max. Limits (Orange):
4 sample points or 3.92% of monitored sample points (details)
ealth Max. Limits (Red
http://www.wqms.co.za - Stellenbosch Municipality Water Qua...
Sample Details
Groendal, Mooiwater Development
Faecal Coliforms (health)
Sample Date: 2007/01/29
Value: 17
Unit: count per 100 mL
Comments and Update Type:
Not applicable
Issue addressed and resolved
Issue addressed but not resolved
Issue not addressed and remains unresolved
Re-sample collected. Drinking Water satisfies requirements.
Done
Area categorisati
tion over 12
ec 06 Jan 07 Fe
osch Municipality - Fa
Sa
hoek Central, Cnr Mid
hoek Central, Kitc
hoek Centra
hoek Centra
hoek Franschhoek P
hoek Groendal, 12 Gladiolus St
Faecal Coliforms (health) 2007/01/29
hoek Groendal, Mooiwater Development Faecal Coliforms (health) 2007/01/29

Acceptable (Green):	**361** sample points or **68%** of monitored sample points (details).
Needs Attention (Yellow):	**137** sample points or **25%** of monitored sample points (details).
Failure Aesthetic/Operational Max. Limits (Orange):	**11** sample points or **2.08%** of monitored sample points (details).
Failure Health Max. Limits (Red):	**19** sample points or **3.60%** of monitored sample points (details).
Overall	**528** sample points monitored





Details

Kwa-Zulu Natal - Failure Aesthetic/Operational Max. Limits (Orange): April 2007

Area		Sample Point	Determinant	Date Failure Occurred	12 Month Tracking Graph
Ugu District Municipality	Umzumbe Municipality	Kwa-Hlongwa Water Treatment Works Final	Turbidity (aesthetic/operational/indirect health)	2007/04/19	View graph
Ugu District Municipality	Vulamehlo Municipality	Hlokozi Water Treatment Works Final	Turbidity (aesthetic/operational/indirect health)	2007/04/19	View graph
Uthukela District Municipality	Emnambithi/Ladysmith Municipality	Colenso WTW Final	Colour (aesthetic)	2007/04/04	View graph
Uthukela District Municipality	Emnambithi/Ladysmith Municipality	Colenso WTW Final	Turbidity (aesthetic/operational/indirect health)	2007/04/04	View graph

http://staging.wqms.co.za - Kwa - Zulu Natal Water Quality Management System - Mozilla Firefox

STAGING SERVER

Sample Details

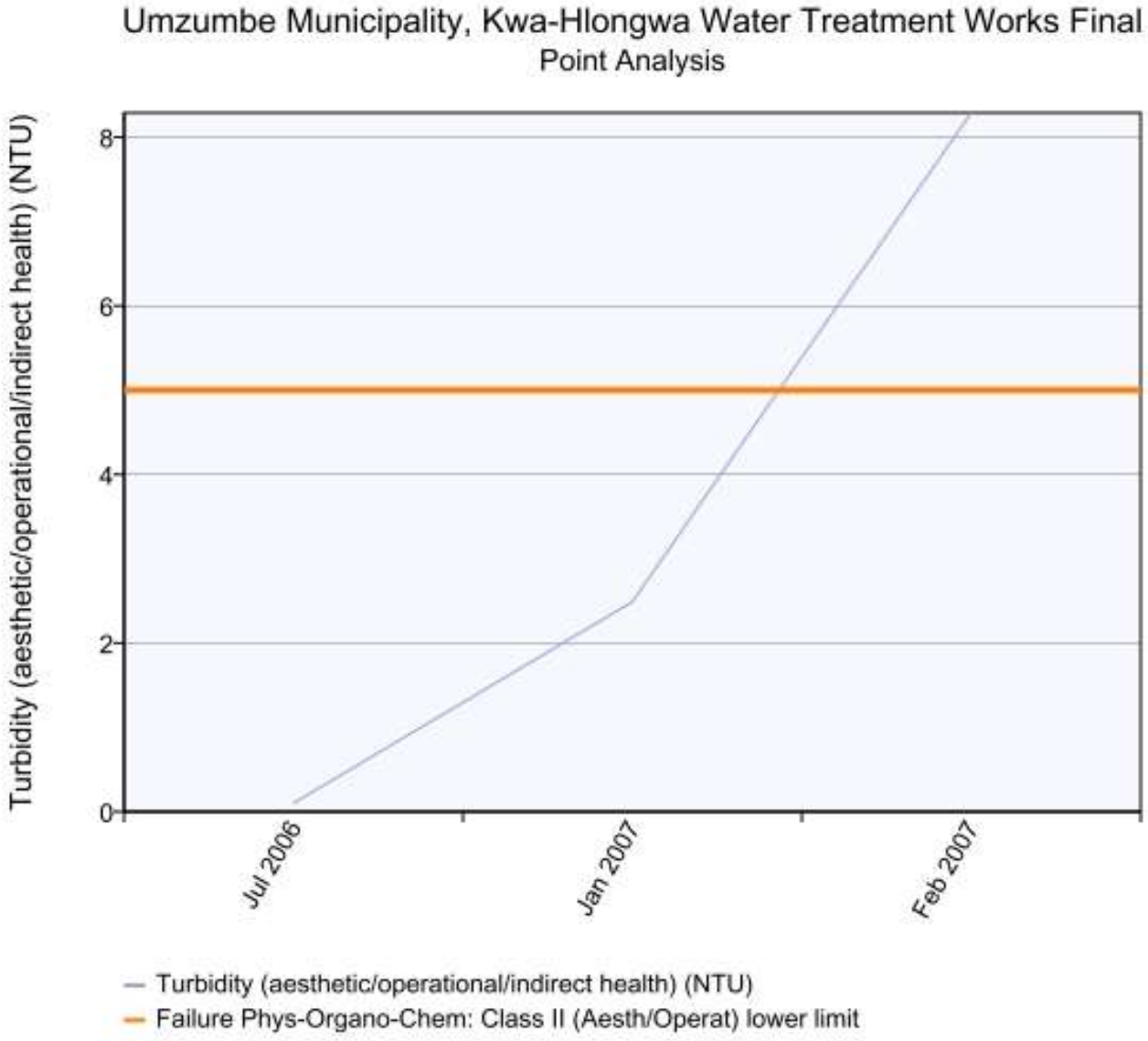
Kwa-Hlongwa Water Treatment Works Final

Turbidity (aesthetic/operational/indirect health)

Sample Date: 2007/04/19
Value: 8.3
Unit: NTU
Comments and Update Type:

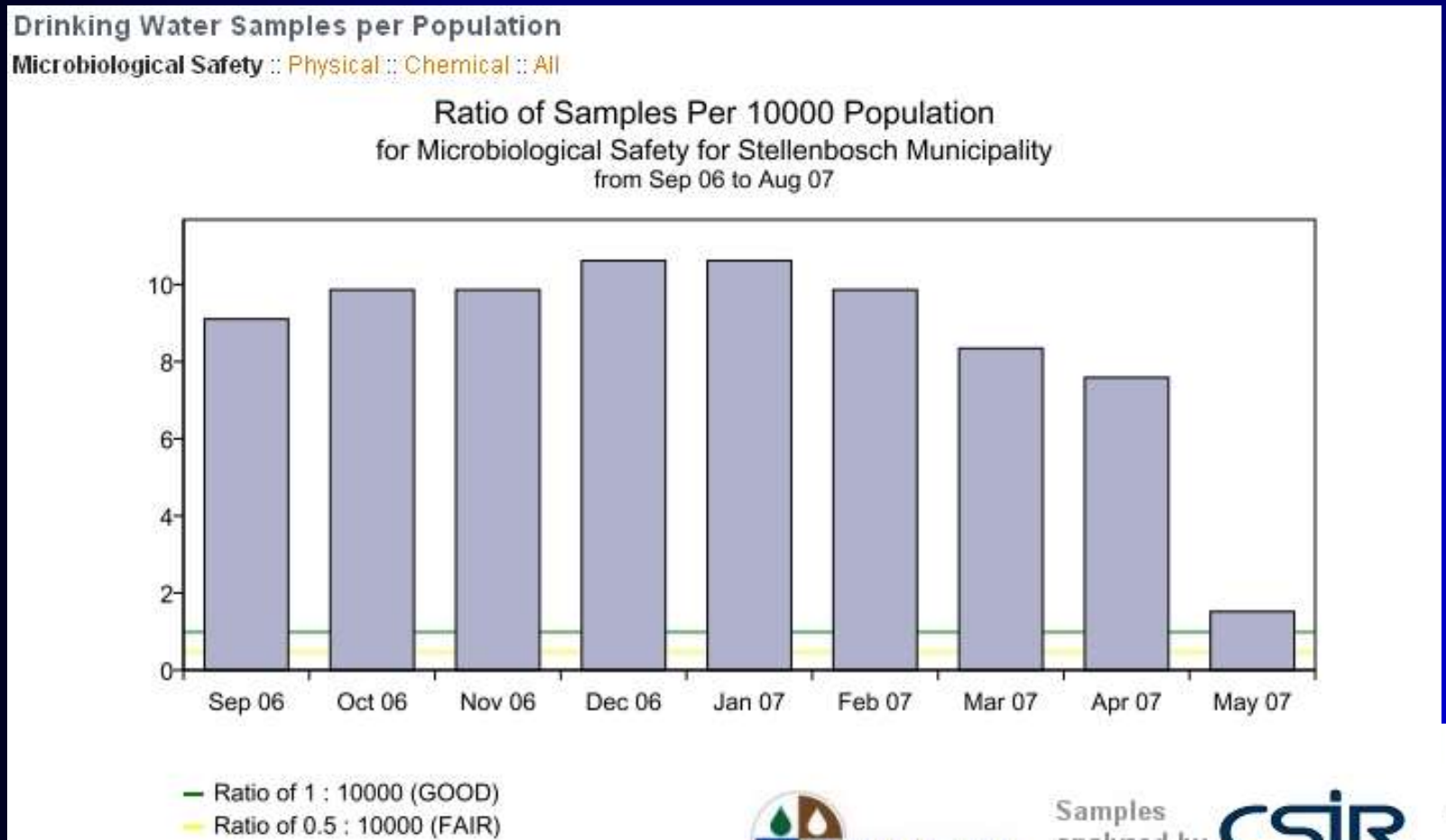
SANS: Microbiological Safety: Column 3 max	SANS: Microbiological Safety: Column 4 max	SANS: Physical, Organoleptic, Chemical: Class I max	SANS: Operational Limits: Acceptable Level max	SANS: Microbiological Safety: Column 5 max	SANS: Physical, Organoleptic, Chemical: Class II max
-	-	< 1	-	-	1 - 5

Turbidity: aesthetic, indirect health 1. Standards 1.1 SANS 241-2005 Class II (Max. Allowable for limit duration): 5 NTU. 1.2 SABS 241-2001 Class II (Max. Allowable Limit): 10 NTU (Class II Water Consumption Period, Max. Limit: No Limit). 2. Description: Although the consumption of turbid water per se does not have any direct health effects, high turbidities imply a high concentration of suspended particles. These particles can shield bacteria and other micro-organisms from the disinfecting properties of, for example chlorine, resulting in ineffective disinfection. If the median value exceeds the required limits shown above, intervention is required to rectify the situation (e.g. optimise operation at the treatment plant, clean reservoirs, scour pipes). ◆

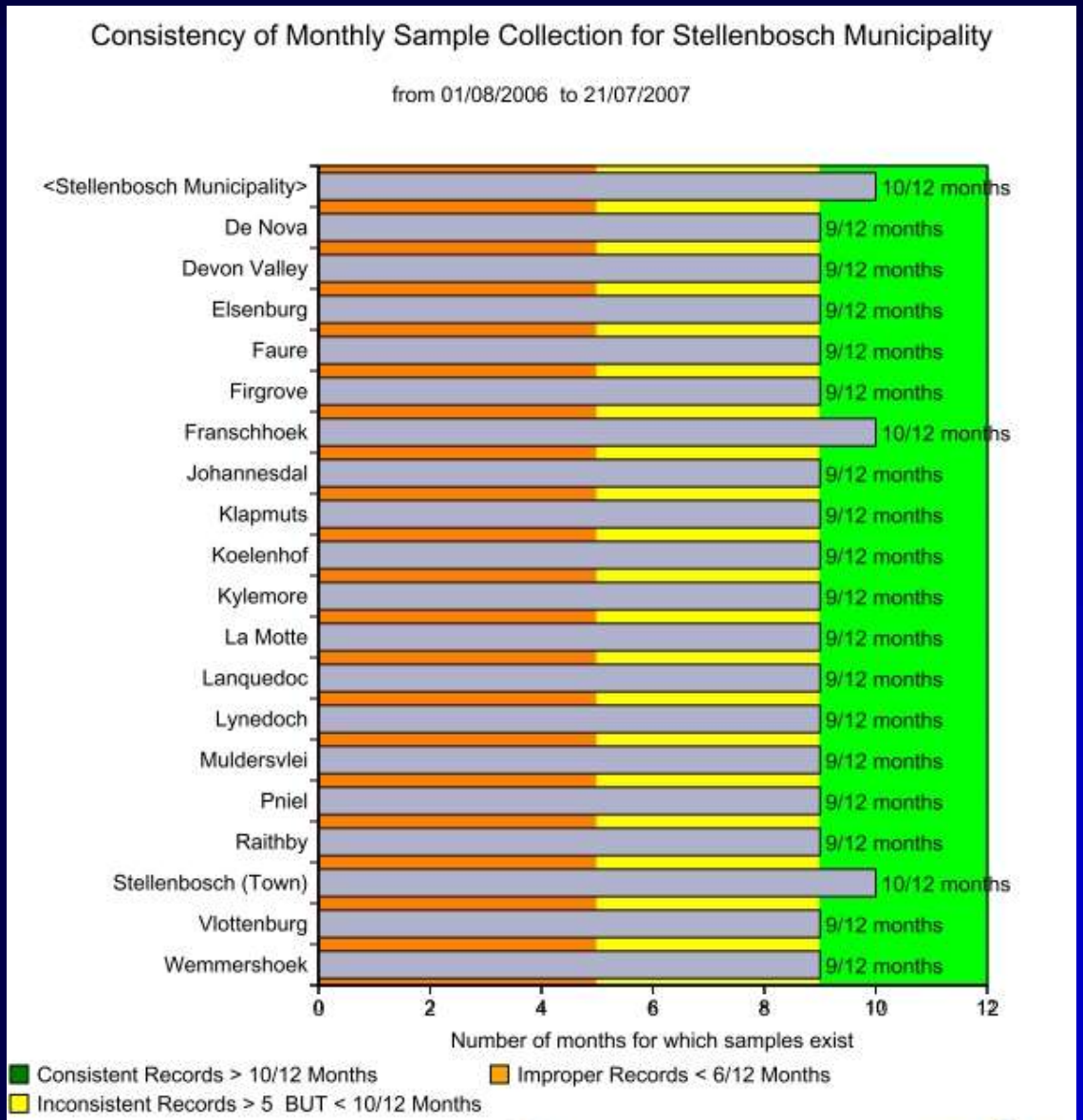


Other Management Dashboard Developments…

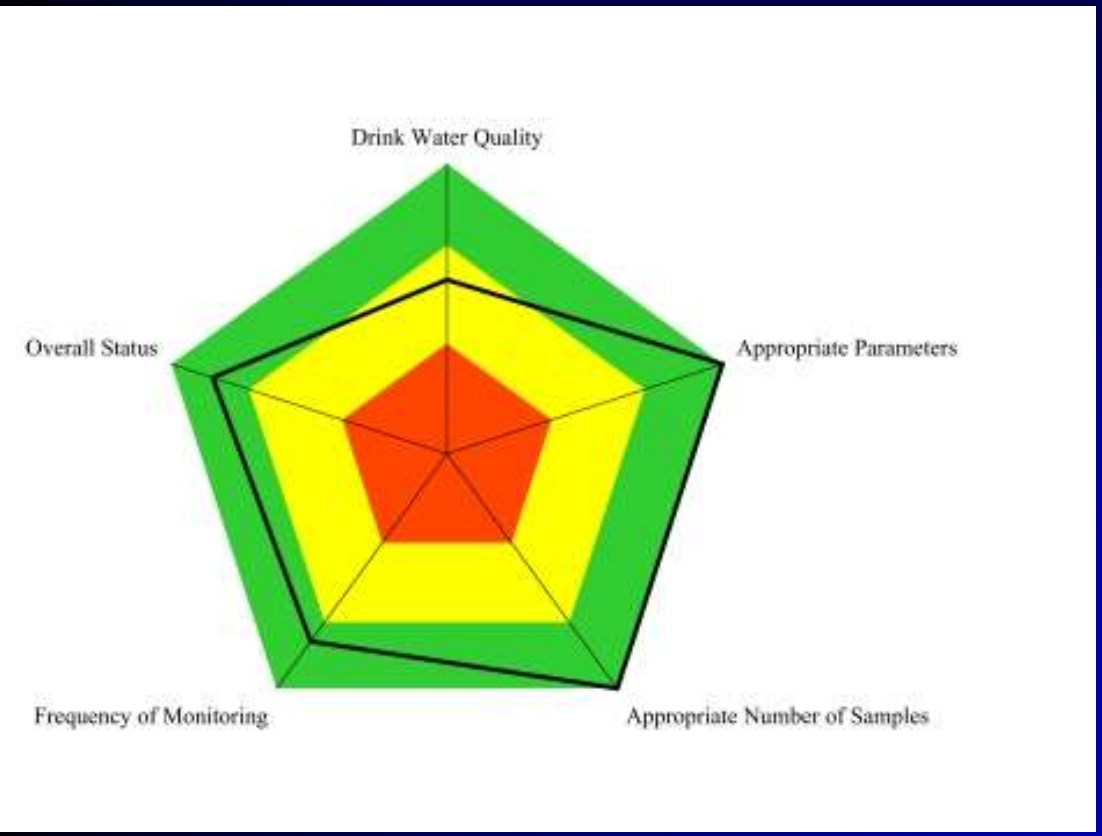
- Appropriate Number of Samples
  - Ratio of samples/population



- Consistency of Records
  - Are WSAs monitoring on a monthly basis or not?



- Audit of WSA DWQM



Consideration of 5 aspects:

1. Water Quality
2. Appropriate parameters/determinants
3. Appropriate Number of Samples
4. Appropriate frequency of monitoring
5. Appropriate sample points

Generation of Performance Index/Percentage for DWQ with benchmarking for sector

1.2 Overview (Annual Compliance) …

New Overview…

Drinking Water Quality Summary

Microbiological Safety :: Microbiological Operational :: Physical :: Chemical

Configure Parameters	Faecal Coliforms (health)		E.coli (health)	
Area	SampleCount	Compliance %	SampleCount	Compliance %
South Africa	*10699*	*98 (view)*	*20916*	*96 (view)*
Western Cape	*1933*	*98 (view)*	*2588*	*94 (view)*
Breede River Winelands Municipality	*60*	*100 (view)*	*45*	*100 (view)*
Ashton	12	100 (view)	9	100 (view)
Bonnievale	12	100 (view)	9	100 (view)
McGregor	12	100 (view)	9	100 (view)
Montagu	12	100 (view)	9	100 (view)
Robertson	12	100 (view)	9	100 (view)
Data Period	2006/06/01 to 2007/05/30			

Quality of Water System	Microbiological requirement	Chemical requirement	
	Column 5 of Table 1	Class I	Class II
Excellent	>= 99%	>= 95%	>= 97%
Good	>= 98%	>= 90%	>= 95%
Fair	>= 97%	>= 85%	>= 90%
Poor	< 97%	< 85%	< 90%

New Overview…

Drinking Water Quality Summary

Microbiological Safety :: Microbiological Operational :: Physical :: Chemical

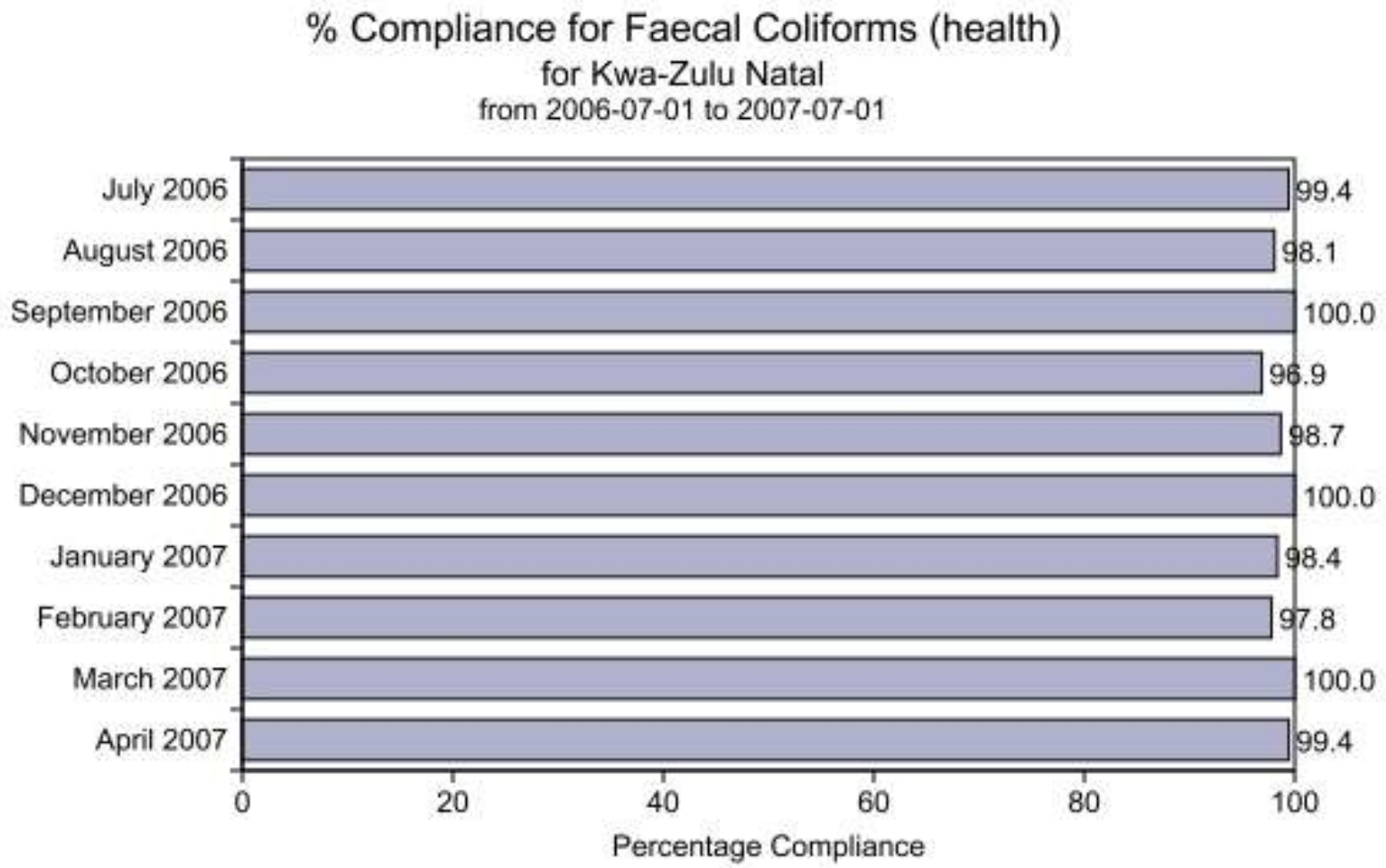
Configure Parameters	Faecal Coliforms (health)	
Area	SampleCount	Compliance %
South Africa	***9685***	***98 (view)***
Kwa-Zulu Natal	***1687***	***98 (view)***
Amajuba District Municipality	75	100 *(view)*
City of uMhlathuze	571	98 *(view)*
Ilembe District Municipality	12	83 *(view)*
Newcastle Municipality	120	100 *(view)*
Ugu District Municipality	27	100 *(view)*
uMkhanyakude District Municipality	26	100 *(view)*
uMzinyathi District Municipality	258	100 *(view)*
Uthukela District Municipality	562	97 *(view)*
Zululand District Municipality	36	100 *(view)*
Data Period	2006/07/03 to 2007/05/14	

Quality of Water System	Microbiological requirement	Chemical requirement	
	Column 5 of Table 1	Class I	Class II
Excellent	>= 99%	>= 95%	>= 97%
Good	>= 98%	>= 90%	>= 95%
Fair	>= 97%	>= 85%	>= 90%
Poor	< 97%	< 85%	< 90%

Dynamic Drinking Water Reports

Compliance Graph

Kwa-Zulu Natal



water & forestry
Department:
Water Affairs and Forestry
REPUBLIC OF SOUTH AFRICA

IMESA

WISA

Drinking Water Quality Summary

Microbiological Safety :: **Microbiological Operational** :: Physical :: Chemical

Configure Parameters	Total Coliforms (operational)	
Area	SampleCount	Compliance %
South Africa	***26253***	***92 (view)***
Western Cape	***3930***	***86 (view)***
Breede River Winelands Municipality	***60***	***95 (view)***
Ashton	12	100 *(view)*
Bonnievale	12	100 *(view)*
McGregor	12	75 *(view)*
Montagu	12	100 *(view)*
Robertson	12	100 *(view)*
Data Period	2006/06/01 to 2007/05/30	

Notes:

- The median value displayed is the median of all samples collected in the particular area. The median v
- The percentage compliance displayed is the percentage of all samples collected in the area falling with

Drinking Water Quality Summary

Microbiological Safety :: Microbiological Operational :: **Physical** :: Chemical

Configure Parameters	pH (aesthetic/operational)			Turbidity (aesthetic/operational/indirect health)			Electrical Conductivity (aesthetic)		
Area	SampleCount	Compliance %	Median(pH units)	SampleCount	Compliance %	Median(NTU)	SampleCount	Compliance %	Median(mS/m)
South Africa	***25665***	***98 (view)***	***7.9***	***26626***	***82 (view)***	***0.4***	***21467***	***99 (view)***	***23.0***
Western Cape	***3249***	***96 (view)***	***8.3***	***3032***	***59 (view)***	***0.8***	***2497***	***98 (view)***	***9.1***
Bitou Municipality	***203***	***99 (view)***	***7.9***	***162***	***97 (view)***	***0.5***	***203***	***100 (view)***	***26.6***
Archwood	2	100 (view)	7.4	1	100 (view)	0.4	2	100 (view)	30.2
Bowtei	11	100 (view)	8.4	5	100 (view)	0.6	11	100 (view)	26.5
Green Valley	10	100 (view)	7.3	9	100 (view)	0.5	10	100 (view)	27.4
Harkerville	15	100 (view)	6.7	14	78 (view)	0.6	15	100 (view)	52.0
Keurboomstrand	15	100 (view)	8.3	11	100 (view)	0.5	15	100 (view)	21.1
Kranshoek	20	100 (view)	8.0	17	100 (view)	0.5	20	100 (view)	24.7
Kurland	10	100 (view)	8.4	9	88 (view)	0.5	10	100 (view)	17.9
Kwanokathula	21	100 (view)	7.5	17	100 (view)	0.5	21	100 (view)	32.5
Longships	15	100 (view)	7.6	11	100 (view)	0.5	15	100 (view)	27.2
Nature's Valley	10	90 (view)	9.1	9	100 (view)	0.7	10	100 (view)	20.9
New Horizen	23	100 (view)	8.8	18	100 (view)	0.5	23	100 (view)	26.2
Plettenberg Bay	4	100 (view)	7.6	4	100 (view)	0.6	4	100 (view)	15.8
Poortjies	12	100 (view)	8.3	9	100 (view)	0.5	12	100 (view)	32.9
Robberg	15	100 (view)	7.8	12	100 (view)	0.4	15	100 (view)	28.5
Wittedrift	20	100 (view)	7.4	16	100 (view)	0.5	20	100 (view)	24.7
Data Period	2006/05/01 to 2007/05/01								

Notes:

- The median value displayed is the median of all samples collected in the particular area. The median value is compared to *SANS 241* and colour coded accordingly.
- The percentage compliance displayed is the percentage of all samples collected in the area falling within *SANS: Physical, Organoleptic, Chemical: Class I*.
- Based on samples taken during the last 12 months.

Configure Parameters	Aluminium (health)			Iron (aesthetic/operational)		
Area	SampleCount	Compliance %	Median(mg/L as Al)	SampleCount	Compliance %	Median(mg/L as Fe)
South Africa	***1917***	***87 (view)***	***0.07***	***5351***	***85 (view)***	***0.04***
Western Cape	***482***	***76 (view)***	***0.12***	***1142***	***68 (view)***	***0.11***
Knysna Municipality	***67***	***34 (view)***	***0.41***	***67***	***47 (view)***	***0.20***
Buffalo Bay	15	0 (view)	1.14	15	93 (view)	0.06
Karatara	13	100 (view)	0.05	13	69 (view)	0.11
Knysna (Town)	12	50 (view)	0.29	12	41 (view)	0.30
Rheenendal	12	8 (view)	1.30	12	0 (view)	0.40
Sedgefield	15	20 (view)	0.36	15	26 (view)	0.25
Data Period	2006/05/02 to 2007/04/30					

Notes:

- The median value displayed is the median of all samples collected in the particular area. The median value is compared to *SANS 241* an
- The percentage compliance displayed is the percentage of all samples collected in the area falling within *SANS: Physical, Organoleptic,*
- Based on samples taken during the last 12 months.

Applicable Standards

SANS: Physical, Organoleptic, Chemical: Class I	
SANS: Physical, Organoleptic, Chemical: Class II	
Failure Phys-Organo-Chem: Class II (Aesth/Operat)	
SANS: Failure Phys-Organo-Chem: Class II (Health)	

SANS 241-2005 Table C.2: Compliance frequency targets in respect of microbiological and chemical requirements that have health implicati

Quality of Water System	Microbiological requirement	Chemical requirement	
	Column 5 of Table 1	Class I	Class II
Excellent	>= 99%	>= 95%	>= 97%
Good	>= 98%	>= 90%	>= 95%
Fair	>= 97%	>= 85%	>= 90%
Poor	< 97%	< 85%	< 90%

1.3 Analysis (Tables and Graphs)…

Drinking Water Analysis

Report Selection

Point Analysis Table

single determinant | determinant set

The point analysis table provides a detailed water quality analysis for a selected sampling point vs. the applicable water quality standards.

Point Analysis Graph

single determinant

The point analysis graph provides a graphical water quality analysis for a selected sampling point vs. the applicable water quality standards.

Median Value Graph

single determinant

The median value graph shows the median value of a particular determinant in an area vs. the applicable water quality standards.

Compliance Table

single determinant | multiple determinants

The compliance table analyses the percentage compliance in an area vs. the applicable water quality standards.

Failure Table

single determinant

The failure table highlights failures in an area vs. the applicable water quality standards.

Failure Graph

single determinant

The failure graph shows the percentage failure of a particular determinant in an area vs. the applicable water quality standards.

Combined Compliance/Failure Graph

single determinant

The combined Comliance/Failure graphs show the percentages of particular determinant in an area vs. the applicable water quality standards.

Raw Analysis Data

analysis values as csv

Download analysis values in CSV format.

Raw Sample Point Data

single determinant
The failure table highlights failures in an area vs. the applicable water quality standards.

Failure Graph

single determinant | The failure graph shows the percentage failure of a particular determinant in an area vs. the applicable water quality standards.

2 Y-Axis Graph

common determinants or common area
The 2 Y-Axis graph has the capability to show actual sampled values for a samplepoint for two determinants or one determinant for two samplepoints or two sta
one statistical value for two areas.

Statistics Table

statistics table for multiple determinants
The Statistics Table shows statistics (Mean, Min, Max etc) for an Area and Determinant Group

Compliance vs Number of Analyses

graph data for area's hierarchy | graph data for area per individual months
Compliance graph vs. number of analyses shows the number of compliant analyses (compliant to their applicable standards) for all samplepoints in a specifie
range.

Combined Compliance/Failure Graph

single determinant
The combined Comliance/Failure graphs show the percentages of particular determinant in an area vs. the applicable water quality standards.

Raw Analysis Data

analysis values as csv
Download analysis values in CSV format.

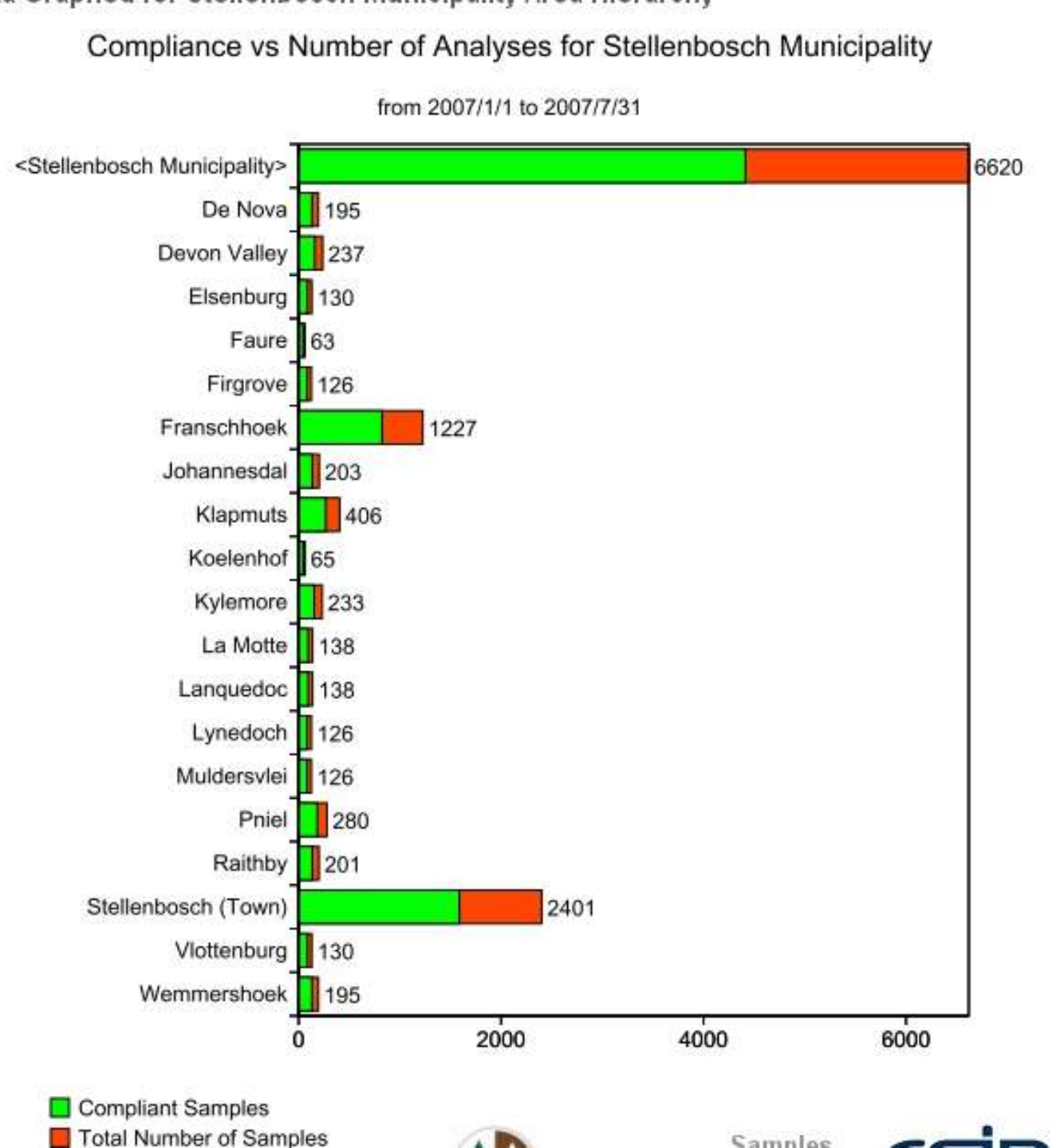
Raw Sample Point Data

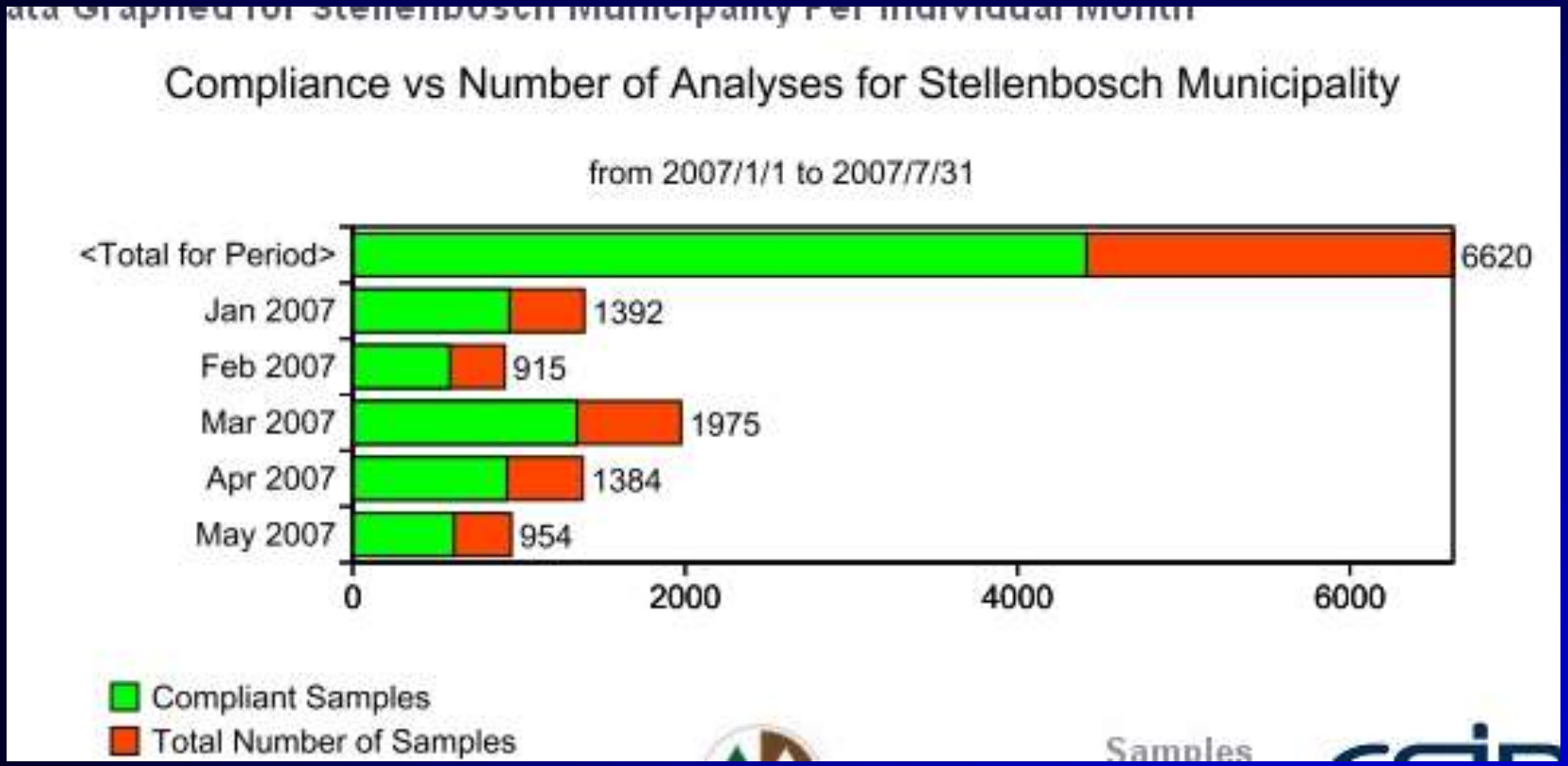
sample points as csv
Download sample point data in CSV format.

Questionnaire Answers in CSV format

This process may take some time to complete.

- GAP ANALYSIS OF DWQM
- SUPPLY SYSTEM ASSESSMENT TOOL
- WASTE STABILIZATION PONDS ASSESSMENT TOOL
- WASTEWATER TREATMENT PLANT ASSESSMENT TOOL


Compliance vs Number of Analyses for Stellenbosch Municipality
from 2007/1/1 to 2007/7/31
<Stellenbosch Municipality>
6620
De Nova
195
Devon Valley
237
Elsenburg
130
Faure
63
Firgrove
126
Franschhoek
1227
Johannesdal
203
Klapmuts
406
Koelenhof
65
Kylemore
233
La Motte
138
Lanquedoc
138
Lynedoch
126
Muldersvlei
126
Pniel
280
Raithby
201
Stellenbosch (Town)
2401
Vlottenburg
130
Wemmershoek
195
0
2000
4000
6000
Compliant Samples
Total Number of Samples


Compliance vs Number of Analyses for Stellenbosch Municipality
from 2007/1/1 to 2007/7/31
<Total for Period>
Jan 2007
Feb 2007
Mar 2007
Apr 2007
May 2007
6620
1392
915
1975
1384
954
0
2000
4000
6000
Compliant Samples
Total Number of Samples

single determinant
The failure table highlights failures in an area vs. the applicable water quality standards.

Failure Graph

single determinant | The failure graph shows the percentage failure of a particular determinant in an area vs. the applicable water quality standards.

2 Y-Axis Graph

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The 2 Y-Axis graph has the capability to show actual sampled values for a samplepoint for two determinants or one determinant for two samplepoints or two sta
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Statistics Table

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Compliance vs Number of Analyses

graph data for area's hierarchy | graph data for area per individual months
Compliance graph vs. number of analyses shows the number of compliant analyses (compliant to their applicable standards) for all samplepoints in a specifie
range.

Combined Compliance/Failure Graph

single determinant
The combined Comliance/Failure graphs show the percentages of particular determinant in an area vs. the applicable water quality standards.

Raw Analysis Data

analysis values as csv
Download analysis values in CSV format.

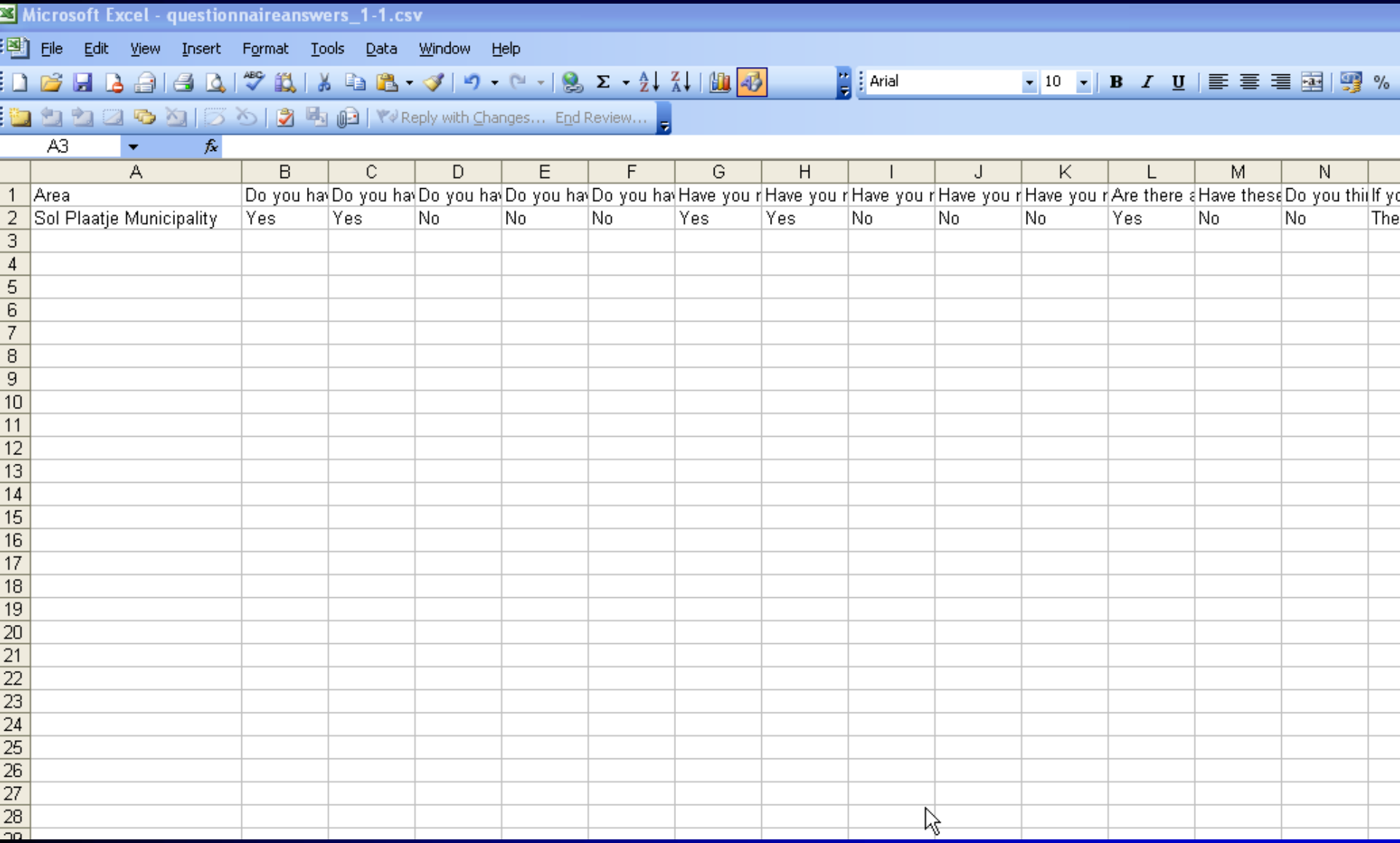
Raw Sample Point Data

sample points as csv
Download sample point data in CSV format.

Questionnaire Answers in CSV format

This process may take some time to complete.

- GAP ANALYSIS OF DWQM
- SUPPLY SYSTEM ASSESSMENT TOOL
- WASTE STABILIZATION PONDS ASSESSMENT TOOL
- WASTEWATER TREATMENT PLANT ASSESSMENT TOOL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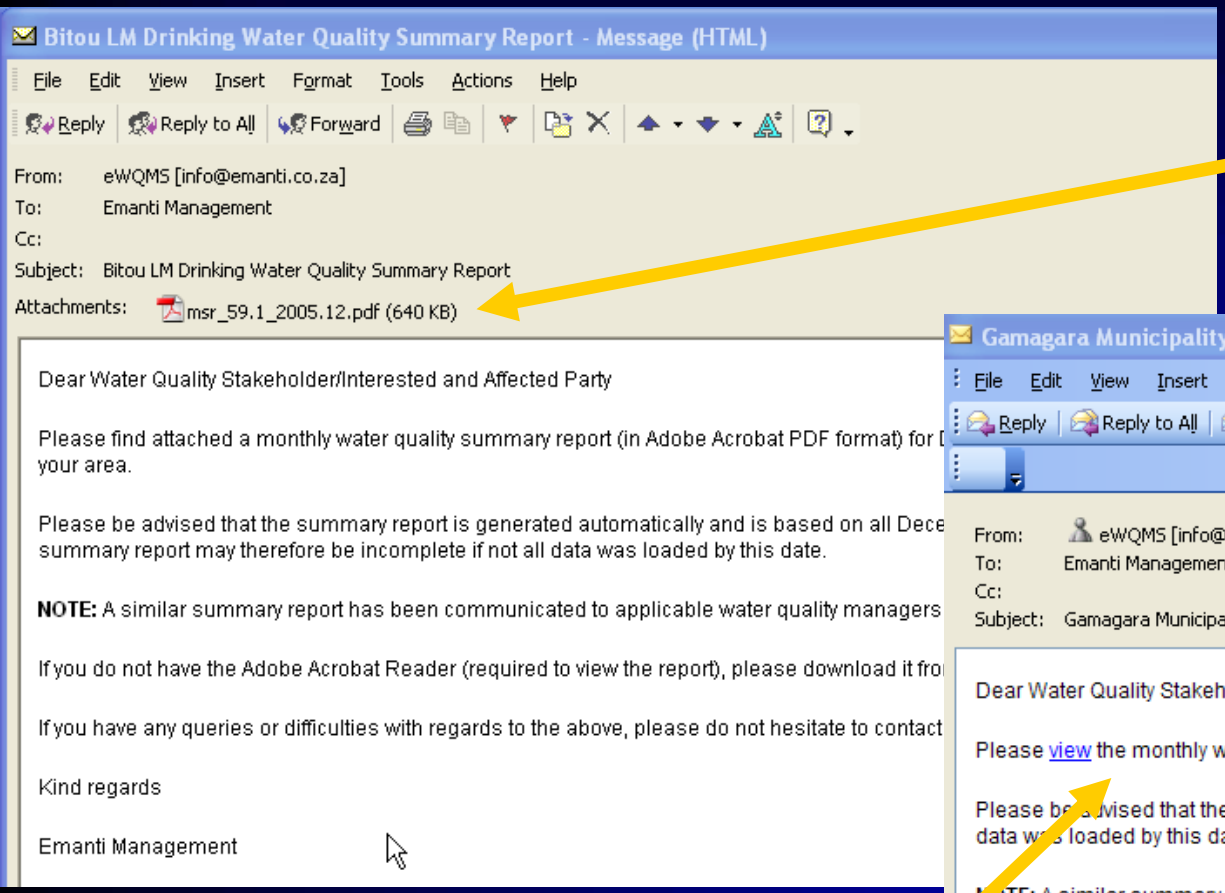
1.4 Reports…

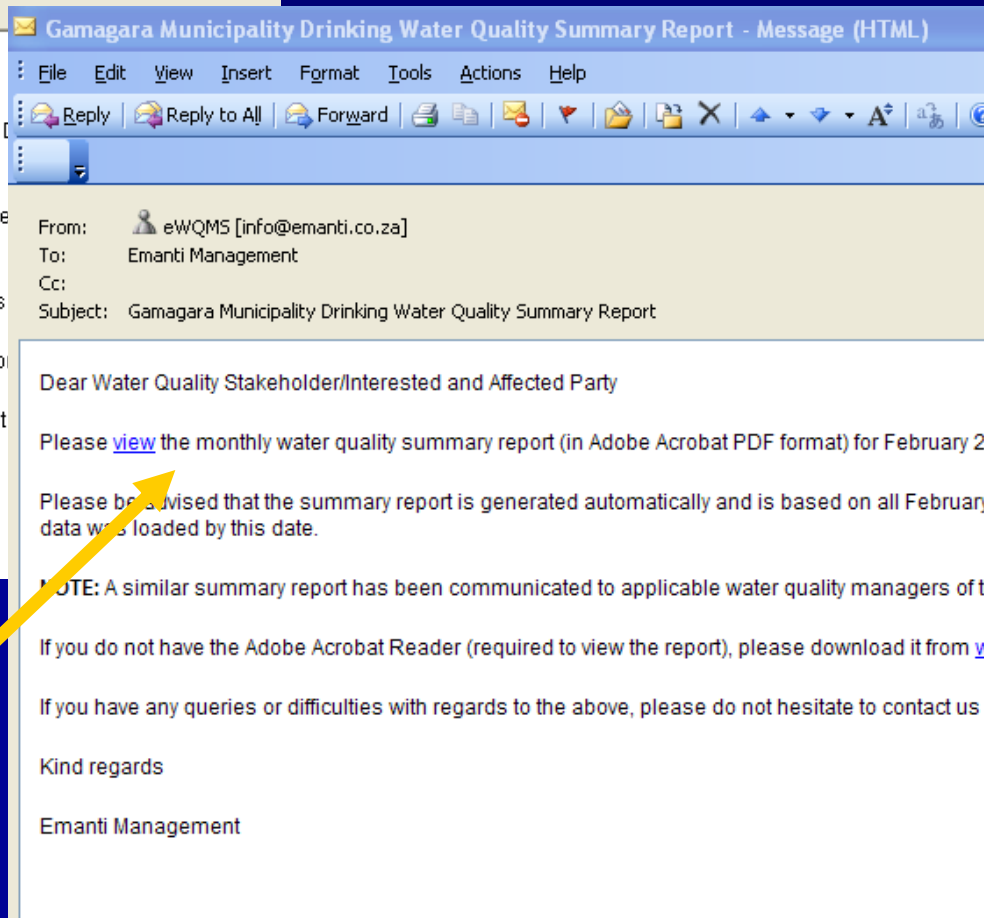
Auto Monthly Summary Reports New Developments…

- Report generated and automatically saved onto eWQMS database (implemented)
- E-mail to water quality managers and stakeholders with:
  - Link to report/s (implemented)
  - Link to “Red” failures – must click to say issue resolved/outstanding (if applicable – i.e. not to stakeholders) (implemented)
- Management Dashboard
  - Include details of both “Red” and “Orange” failures (implemented)
  - Dashboard tracking bar chart for last 12 months (implemented)

WSA Auto Summary Report…



Old (attachment)



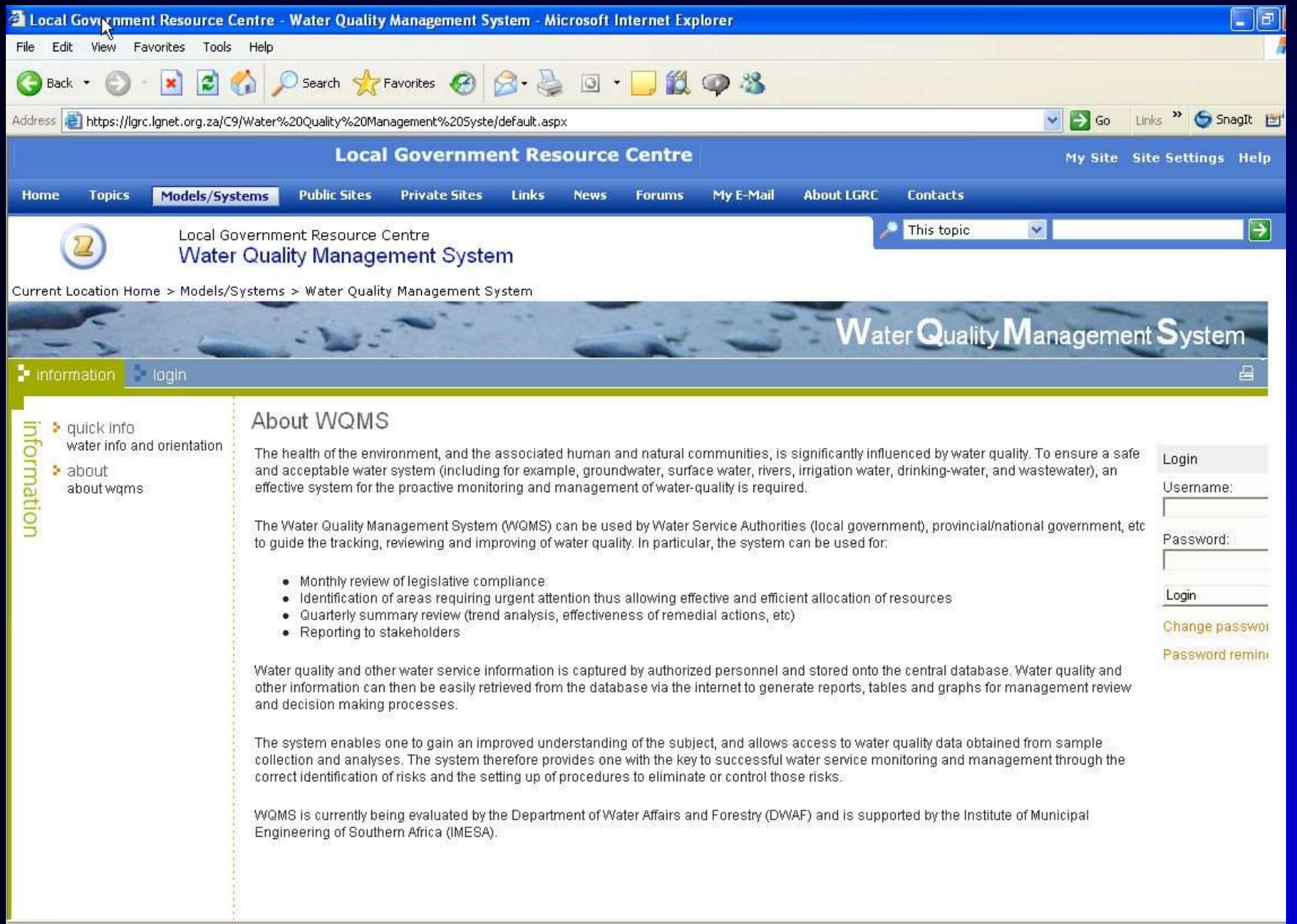
New (no attachment)

Auto Monthly Reports Testing…

- New graphs
  - Bacteriological
    - % failure
    - Median values
  - Physical-chemical
    - % failure
    - Mean value
- New tables
- New Appendices
  - All Red failures and issue resolution
  - Tracking graphs

2. Other eWQMS Initiatives

DBSA LG Net…


Local Government Resource Centre - Water Quality Management System - Microsoft Internet Explorer
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Address https://lgrc.lgnet.org.za/C9/Water%20Quality%20Management%20Syste/default.aspx
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Water Quality Management System
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Water Quality Management System
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About WQMS
The health of the environment, and the associated human and natural communities, is significantly influenced by water quality. To ensure a safe and acceptable water system (including for example, groundwater, surface water, rivers, irrigation water, drinking-water, and wastewater), an effective system for the proactive monitoring and management of water-quality is required.
The Water Quality Management System (WQMS) can be used by Water Service Authorities (local government), provincial/national government, etc to guide the tracking, reviewing and improving of water quality. In particular, the system can be used for:
Monthly review of legislative compliance
Identification of areas requiring urgent attention thus allowing effective and efficient allocation of resources
Quarterly summary review (trend analysis, effectiveness of remedial actions, etc)
Reporting to stakeholders
Water quality and other water service information is captured by authorized personnel and stored onto the central database. Water quality and other information can then be easily retrieved from the database via the internet to generate reports, tables and graphs for management review and decision making processes.
The system enables one to gain an improved understanding of the subject, and allows access to water quality data obtained from sample collection and analyses. The system therefore provides one with the key to successful water service monitoring and management through the correct identification of risks and the setting up of procedures to eliminate or control those risks.
WQMS is currently being evaluated by the Department of Water Affairs and Forestry (DWAF) and is supported by the Institute of Municipal Engineering of Southern Africa (IMESA).
Login
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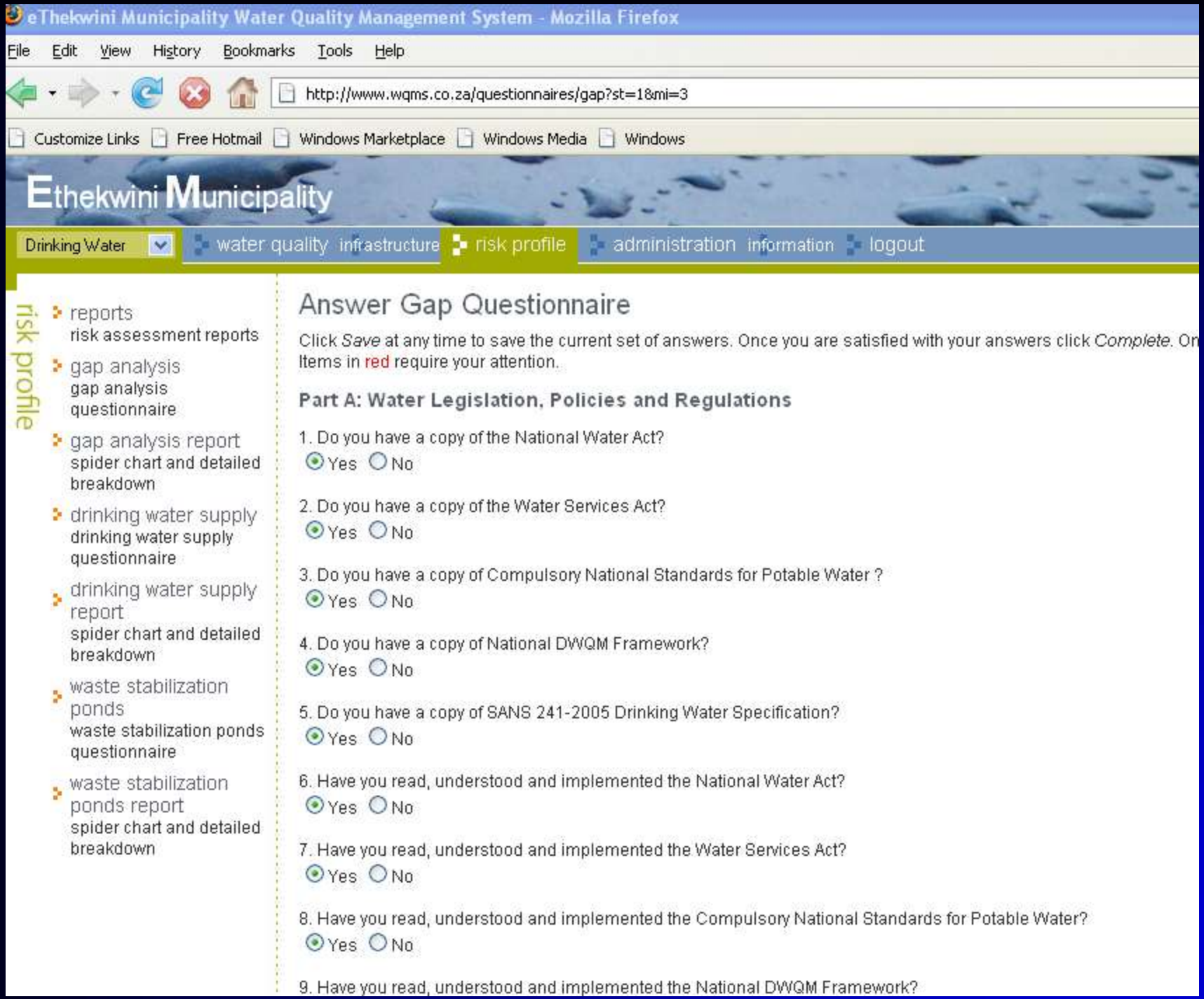
Web-Enablement of Strategic Gap Analysis of DWQM…

water & forestry
Department:
Water Affairs and Forestry
REPUBLIC OF SOUTH AFRICA


eThekwini Municipality Water Quality Management System - Mozilla Firefox
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Ethekwini Municipality
Drinking Water
water quality infrastructure
risk profile
administration information
logout
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Answer Gap Questionnaire
Click Save at any time to save the current set of answers. Once you are satisfied with your answers click Complete. On
Items in red require your attention.
Part A: Water Legislation, Policies and Regulations
1. Do you have a copy of the National Water Act?
Yes No
2. Do you have a copy of the Water Services Act?
Yes No
3. Do you have a copy of Compulsory National Standards for Potable Water ?
Yes No
4. Do you have a copy of National DWQM Framework?
Yes No
5. Do you have a copy of SANS 241-2005 Drinking Water Specification?
Yes No
6. Have you read, understood and implemented the National Water Act?
Yes No
7. Have you read, understood and implemented the Water Services Act?
Yes No
8. Have you read, understood and implemented the Compulsory National Standards for Potable Water?
Yes No
9. Have you read, understood and implemented the National DWQM Framework?

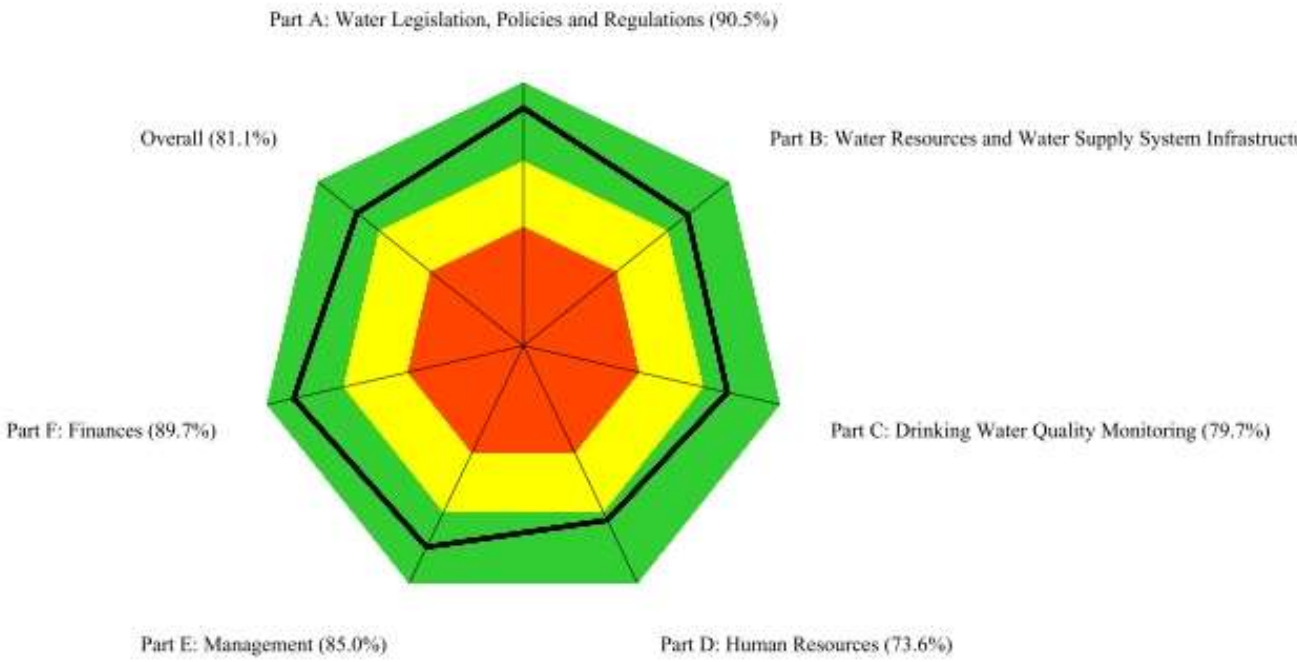
Gap Questionnaire Report

eThekwini Municipality Report

From [ ] *to* [ ] Filter *(eg 2006/01/20 to 2006/08/15)*

Questionnaire: *GAP ANALYSIS OF DWQM*
Date Range: *Latest Answers*

Answered on 05 Mar 2007 13:37



0 - 44.9%
45 - 69.9%
70 - 100%

Click on a section to jump to a detailed view of the answers

WRC WSS Assessment Tool…

- WSAs → Self Assessment of the Water Supply System (WTP and Network)
  - Assist in planning (short/medium or long term needs)
  - Identify areas of risks and needs (short/medium or long term needs)
  - Assist in identifying and tracking emergency issues
  - Assist in understanding of WSS maintenance
- DWAF → Auditing tool
  - Identify WSAs challenges
  - Talk about WSAs plans
  - Identify assistance required

Assessment Categories…

- Design
- Operations
- Water Quality and System Performance
- Maintenance
- Supervision and Management
- Waste Management
- Safety
- Emergency Preparedness and Response

File Edit View Go Bookmarks Tools Help

http://www.wqms.co.za/questionnaires/

Customize Links Free Hotmail Windows Marketplace Windows Media Windows

Stellenbosch Municipality

Drinking Water | water quality | infrastructure | risk profile | administration | information | logout

risk profile

- reports
  risk assessment reports
- gap analysis
  gap analysis questionnaire
- gap analysis report
  spider chart and detailed breakdown
- drinking water supply
  drinking water supply questionnaire
- drinking water supply report
  spider chart and detailed breakdown

Answer Drinking Water Supply Questionnaire

Click *Save* at any time to save the current set of answers. Once you are satisfied with your answers click *Complete*
Items in red require your attention.

Paradyskloof Water Treatment Works

Section 1: Design

1. Is the design capacity of the plant known?
   - (•) Yes
   - ( ) No
   - ( ) Don't know

2. What is the design capacity?

10 ML/day

3. Is the plant operating within its design capacity? (i.e. spare capacity available?)
   - (•) Yes/Most of the time
   - ( ) No
   - ( ) Don't know

4. What treatment processes are utilised?
   - [x] Pre-treatment (aeration, pH adjustment, etc)
   - [x] Flocculation/Coagulation (alum, ferric, polyeletrolyte, etc)
   - [x] Sedimentation/Clarification (settling tank, DAF, etc)
   - [x] Filtration (sand, multi-media, membranes, etc)

risk assessment reports
gap analysis
gap analysis questionnaire
gap analysis report
spider chart and detailed breakdown
drinking water supply
drinking water supply questionnaire
drinking water supply report
spider chart and detailed breakdown

Stellenbosch Municipality Report

From *to* Filter *(eg 2006/01/20 to 2006/08/15)*

Questionnaire: *DRINKING WATER SUPPLY RISK PROFILING TOOL*
Date Range: *Latest Answers*

Paradyskloof Water Treatment Works: Answered on 29 Jan 2007 14:27

Wastewater Ponds and Wastewater Treatment Works Assessment Tools…

- Similar principle to WSS Tool
- Wastewater Pond Assessment Tool
  - WRC Project
  - Currently web-enabling for sector to use
- WWTW Assessment Tool
  - Currently developing
  - Will also need to web-enable for sector to use

3. Way Forward…

Way Forward…

- WSAs meet legislated requirements
  - Continue to load data (monthly monitoring of DWQ)
  - Utilise system to improve water services
- Continuous feedback from WSAs to further enhance eWQMS
- Based on WSA and sector needs
  - New features added to eWQMS