

#### Provincial Best Performer

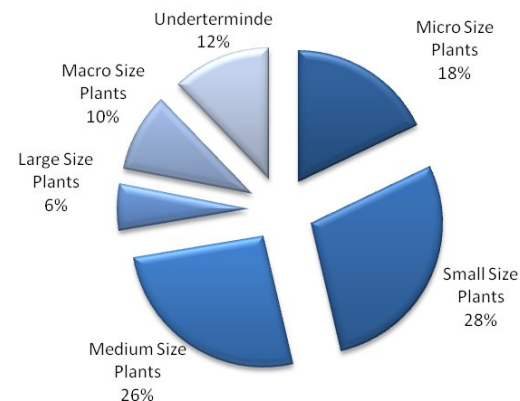
City of Cape Town Metropolitan Municipality is the best performing municipality in Western Cape Province:

- ✓ 97.61% Municipal Blue Drop Score

#### Introduction

Water services delivery is performed by twenty nine (29) Water Services Authorities in Western Cape via 123 drinking water supply systems. The respective municipalities and the Overberg Water Board are the main Water Services Provider in Western Cape.

#### Distribution of Water Supply Systems in Western Cape



A total design capacity of 2663 is available for drinking water supply in Western Cape Province, distributed over 123 supply systems. Operational data is not available for all systems; however, the existing data indicates operating capacities between 13 and 111%. This results in an average output volume (of raw water) of approximately 1646 M/day.

|                        | MICRO<br>SIZE<br><0.5<br>M /day | MID<br>SIZE<br>0.5-2<br>M /day | MEDIUM<br>SIZE<br>2-10<br>M /day | LARGE<br>SIZE<br><10-25<br>M /day | MACRO<br>SIZE<br>>25<br>M /day | Under-<br>mined | Total  |
|------------------------|---------------------------------|--------------------------------|----------------------------------|-----------------------------------|--------------------------------|-----------------|--------|
| Supply Systems         | 22                              | 35                             | 32                               | 7                                 | 12                             | 15              | 123    |
| Volume (M /day)        | 4.19                            | 35.5                           | 138.7                            | 101.4                             | 2383.7                         | N               | 2663.4 |
| Operating Capacity (%) | 64.8                            | 74.1                           | 68.7                             | 50.4                              | 50.9                           | N               | 61.8   |
| (M /day)               | 2.7                             | 26.3                           | 95.3                             | 51.1                              | 1213.3                         | N               | 1646   |

N/A = Not Applicable  
NI = No Information

#### Provincial Blue Drop Analysis

Analysis of the Blue Drop assessments and site inspection results indicate that performance varies from excellent to good. A total of **100% municipalities** were assessed during the 2010/11 Blue Drop Certification.

| BLUE DROP COMPARATIVE ANALYSIS    |          |          |          |                   |
|-----------------------------------|----------|----------|----------|-------------------|
| Performance Category              | 2009     | 2010     | 2011     | Performance trend |
| <i>Incentive-based indicators</i> |          |          |          |                   |
| Number of municipalities assessed |          | ( 100%)  | ( 100%)  | →                 |
| Number of water systems assessed  | 87       | 109      | 123      | ↑                 |
| Number of Blue Drop scores ≥50%   | ( 65.5%) | ( 80.7%) | ( 77.2%) | ↑                 |
| Number of Blue Drop scores <50%   | ( 34.5%) | ( 19.3%) | ( 22.8%) | ↑                 |
| Number of Blue Drop awards        | 11       | 14       | 29       | ↑                 |
| PROVINCIAL BLUE DROP SCORE        | 60.32%   | 92.45%   | 94.09%   | N/A               |

N/A = Not applied

↑ = improvement, ↓ = digress, → = no change

A total of 123 systems were assessed in 2011 compared to the 109 systems in 2010. Readers need to be mindful however, that large systems may have subdivided to form several smaller systems whilst smaller systems may have collapsed to form one larger supply system.

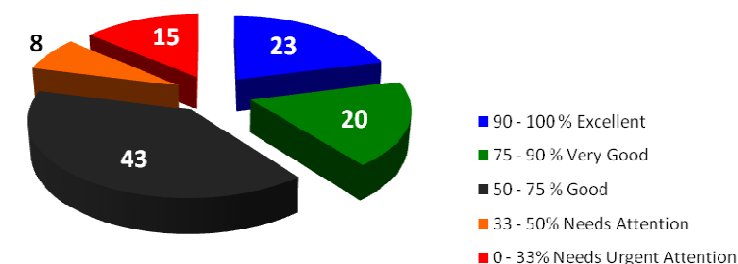
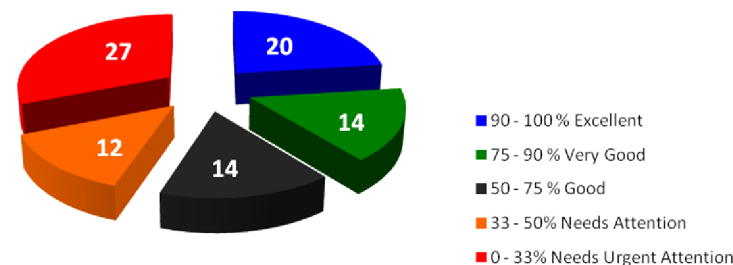
#### Trend Analysis: Provincial Blue Drop Score – Years 2009 to 2011

The 100% assessment coverage serves to affirm the continued commitment by Western Cape municipalities to provide reliable and uninterrupted water supply to consumers. Through the Blue Drop process, municipalities are renewing their operational bases and re-prioritise their plans with the primary objective of raising the current performance status in terms

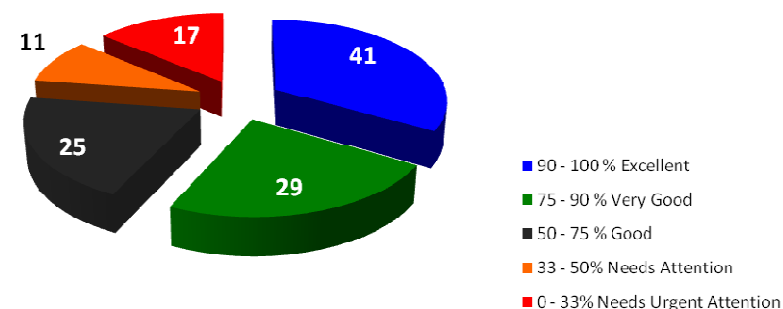
of municipal drinking water quality management. The incentive-based regulatory approach succeeds to act as a positive stimulus to facilitate improved performance and public accountability, whilst establishing essential systems and processes to sustain and ensure gradual improvement. The trends analysis indicate that Western Cape municipalities are succeeding in its strive to improve and maintain the Provincial Blue Drop score over a period of three years. The provincial scores increased from 60.3 (2009) to 92.5 (2010) to 94.1% in 2011. This trend gives the province the well deserved title of the most progressive in proven performance over 3 operational years, raising the 2009 status by a remarkable 34%. The most marked achievement is possibly the 29 Blue Drop scores in the Province, which is confirming that the Province is moving into a position of strength.

Whereas only 88 systems obtained Blue Drop scores ≥ 50% in 2010, 95 systems obtained >50% in the 2011 Blue Drop cycle. In addition, the number of systems scoring between 90 – 100% increased from 43 (2010) to 65 (2011) systems as indicated in the pie chart hereunder. However, the most significant statistic is the Provincial Blue Drop Score of 94.09% which places Western Cape as one of the top national performers.

#### Blue Drop Assessment Results 2009



#### Blue Drop Assessment Results 2011



When comparing 2011 Blue Drop results with 2009 and 2010, the following trends are observed:

- ✓ 123 systems are assessed in 2011 compared to 87 (2009) and 107 (2010)
- ✓ 29 systems achieved Blue Drop Certification, compared to 14 (2010) and 11 (2009)
- ✓ 57% of all systems are now in excellent and very good state (2011) compared to 40.2% of systems in 2010 and 39% (2009)
- ✗ 17 systems scored between 0-33% in 2011, as opposed to 15 systems in 2010 – this marks a slight decrease in systems that need attention.

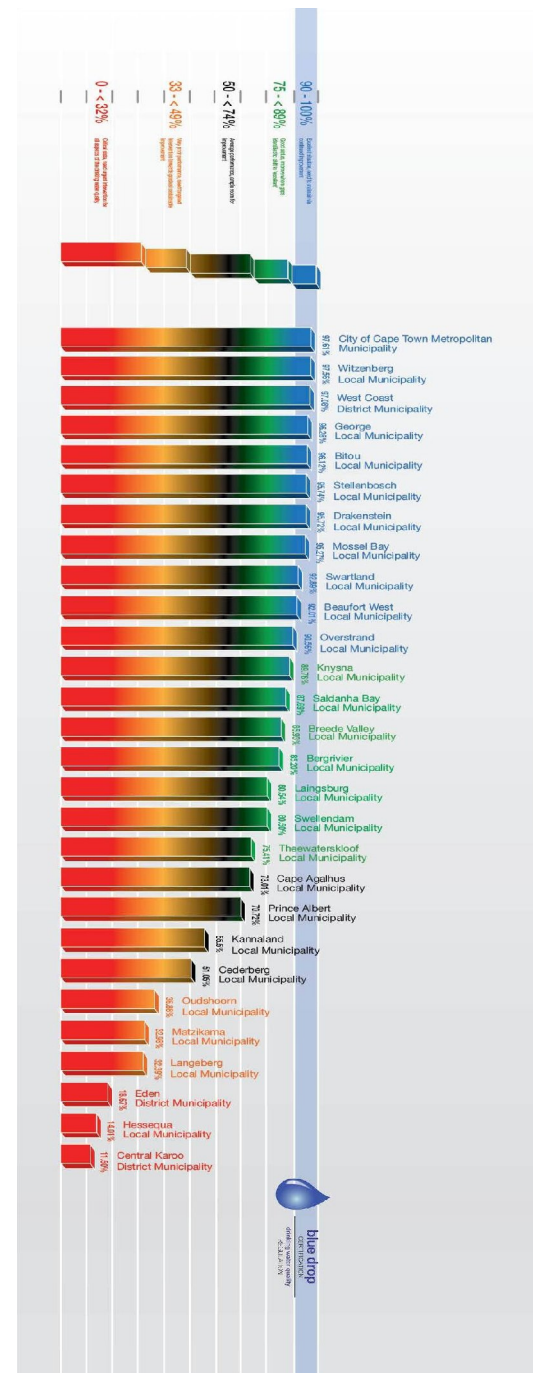
Readers need to be mindful that Blue Drop Certification follows a regulation strategy that facilitates **gradual and sustainable improvement**... Thereby, Blue Drop requirements become more stringent with every assessment cycle. Municipalities who merely 'maintained' their water consumption levels year in and out, is likely to achieve reduced Blue Drop scores, whilst municipalities that drive 'continuous' improvement, are likely to be awarded with improved Blue Drop scores with each assessment cycle.

## Conclusion


The Blue Drop results for 2011 indicate that municipal drinking water quality management in Western Cape vary from excellent to unsatisfactory, with 17 systems that need urgent attention, as indicated in the Provincial Performance Log. The overall businness of drinking water supply and quality management is satisfactory, however areas of concern are raised where improvement is required. Western Cape is taking the second place of best performing province in the country in terms of the Provincial Blue Drop score. However, Western Cape accomplished the highest number of Blue Drop systems in South Africa.

Twenty-nine Blue Drop Certificates are awarded in Western Cape:

- **1 Blue Drop** : Beaufort West Local Municipality
- **3 Blue Drops** : Bitterfontein Local Municipality
- **1 Blue Drop** : City of Cape Town Metropolitan Municipality
- **3 Blue Drops** : Drakenstein Local Municipality / City of Cape Town and West Coast District Municipality
- **2 Blue Drops** : George Local Municipality
- **2 Blue Drops** : Mossel Bay Local Municipality
- **3 Blue Drops** : Overstrand Local Municipality
- **3 Blue Drops** : Stellenbosch Local Municipality / City of Cape Town
- **3 Blue Drops** : West Coast District Municipality
- **5 Blue Drops** : Witzenberg Local Municipality



Municipal Blue Drop Score 2011: **92.01%**

| Performance Area   | Systems | Beaufort West   | Merweville         | Nelspoort        |
|--|---------|---|--------------------|------------------|
|  |         |  |                    |                  |
| Water Safety Planning Process & Incident Response Management |         | 96  | 72                 | 76               |
| Process Control, Maintenance & Management Skills             |         | 84  | 90                 | 94               |
| Monitoring Programme   |         | 93  | 63                 | 59               |
| Credibility of Sample Analyses                               |         | 93  | 75                 | 75               |
| Submission of Results  |         | 100   | 100                | 100              |
| Drinking Water Quality Compliance                            |         | 100   | 85                 | 20               |
| Performance Publication                                      |         | 100   | 100                | 100              |
| Asset Management   |         | 82  | 63                 | 66               |
| Bonus Scores   |         | 1.3   | 0                  | 0                |
| Penalties  |         | 1.5   | 1.5                | 1.2              |
| <b>Blue Drop Score (2011)</b>                                |         | <b>95.44%(↑)</b>  | <b>79.71%(↓)</b>   | <b>61.21%(↓)</b> |
| Blue Drop Score (2010)                                       |         | 95.00%  | 86.25%             | 70.13%           |
| System Design Supply Capacity (MI/d)                         |         | 4.32  | 0.4                | 0.32             |
| System Operational Capacity                                  |         | 105%  | 68%                | 103%             |
| Population Served by System                                  |         | 37 200  | 1 233              | 1 758            |
| Ave. Daily Consumption per Capita (l)                        |         | 122   | 220                | 155              |
| Microbiological Compliance(12 months)                        |         | 99.29%  | 100.00%            | 76.92%           |
| Chemical Compliance(12 months)                               |         | 100.00%   | 100.00% (9 months) | 100.00%          |

#### Regulatory Impression:

It is a well known fact that Beaufort West has been challenged severely due to water shortages (droughts) but this has not prevented committed efforts to be dedicated to consistently supply water of safe quality. The Blue Drop logo can now again be proudly associated with this town in the heartland of the Karoo.

It is however required that the municipality improve on the consistent implementation of an effective monitoring programme. Sampling points should be set according to the critical control points, informed by the risk assessment (water safety planning process).

A worrying fact though would be that the inspectors only found two chlorine tanks on site while the plant uses 4 a month. This finding points to the fact that the procurement and ordering process poses a risk to the continued supply of safe water. This must be given priority attention.

Municipal Blue Drop Score 2011: **85.20%**

| Performance Area   | Systems | Aurora            | Eendekuil         | Piketberg         |
|--|---------|-------------------|-------------------|-------------------|
| Water Safety Planning Process & Incident Response Management |         | 69                | 61                | 67                |
| Process Control, Maintenance & Management Skills             |         | 93                | 73                | 39                |
| Monitoring Programme   |         | 66                | 57                | 80                |
| Credibility of Sample Analyses                               |         | 100               | 93                | 96                |
| Submission of Results  |         | 100               | 85                | 100               |
| Drinking Water Quality Compliance                            |         | 67                | 82                | 52                |
| Performance Publication                                      |         | 100               | 100               | 100               |
| Asset Management   |         | 78                | 70                | 76                |
| Bonus Scores   |         | 0                 | 0                 | 0                 |
| Penalties  |         | 1.5               | 1.5               | 1.5               |
| <b>Blue Drop Score (2011)</b>                                |         | <b>77.88%(↑)</b>  | <b>76.15%(↑)</b>  | <b>68.78%(↑)</b>  |
| Blue Drop Score (2010)                                       |         | 58.69%            | 57.81%            | 62.19%            |
| System Design Supply Capacity (MI/d)                         |         | 0.22              | 0.09              | 3                 |
| System Operational Capacity                                  |         | 59%               | 22%               | 80%               |
| Population Served by System                                  |         | 650               | 600               | 9 900             |
| Ave. Daily Consumption per Capita (l)                        |         | 199               | <50               | 242               |
| Microbiological Compliance(12 months)                        |         | 100.00%           | 100.00%           | 100.00%           |
| Chemical Compliance(12 months)                               |         | 96.97% (6 months) | 96.67% (6 months) | 84.85% (6 months) |

| Performance Area   | Systems | Poterville       | Redelinghuys       | Veldrift         |
|--|---------|------------------|--------------------|------------------|
| Water Safety Planning Process & Incident Response Management |         | 69               | 67                 | 75               |
| Process Control, Maintenance & Management Skills             |         | 93               | 29                 | 100              |
| Monitoring Programme   |         | 66               | 63                 | 100              |
| Credibility of Sample Analyses                               |         | 100              | 93                 | 100              |
| Submission of Results  |         | 100              | 100                | 100              |
| Drinking Water Quality Compliance                            |         | 67               | 80                 | 80               |
| Performance Publication                                      |         | 100              | 100                | 100              |
| Asset Management   |         | 76               | 63                 | 100              |
| Bonus Scores   |         | 0                | 0                  | 2.2              |
| Penalties  |         | 1.5              | 1.5                | 0.3              |
| <b>Blue Drop Score (2011)</b>                                |         | <b>78.21%(↑)</b> | <b>52.69%(↑)</b>   | <b>93.15%(↑)</b> |
| Blue Drop Score (2010)                                       |         | 62.19%           | 54.19%             | 67.38%           |
| System Design Supply Capacity (MI/d)                         |         | 0.22             | 0.19               | 5.5              |
| System Operational Capacity                                  |         | 59%              | 95%                | 20%              |
| Population Served by System                                  |         | 650              | 600                | 11 500           |
| Ave. Daily Consumption per Capita (l)                        |         | 200              | 300                | 96               |
| Microbiological Compliance(12 months)                        |         | 97.56%           | 91.67%             | 96.36%           |
| Chemical Compliance(12 months)                               |         | 100.00%          | 100.00% (6 months) | 100.00%          |

### Regulatory Impression:

Berg River Local Municipality did very well during the last Blue Drop assessment at to the extent where they (together with West Coast DML) can extremely close to obtaining a Blue Drop for the Verbrif water supply system. The trend of good performance is evident throughout the 6 system which is the reason for optimism with the Blue Drop inspectors on future performances of this water services authority.




Unfortunately the compliance in Plettenberg and Redehgshuys is not up to standard. It is expected that this will be improved soonest. During the technical verification audit at the Plettenberg plant, the inspectors found this works currently being refurbished which holds promise of improved drinking water quality. In spite of the construction work, the state of plant was rather impressive. (So too was the Porterville works)

### Findings

1. The process controlling team at Plettenberg was unaware of the whereabouts of the measurement device. This was identified as a shortcoming that will affect effective asset management at the plant.
2. The filtration system at Plettenberg did not appear to be in the most acceptable condition. There were signs of maldistribution and uneven backwashing. (The Department notes that this will be rectified with commissioning of new plant)
3. The municipality is required to perform a full SANS 241 as part of its risk assessment to inform an effective monitoring programme.

|                           |                          |
|---------------------------|--------------------------|
| Water Services Authority: | Bitou Local Municipality |
| Water Services Providers: | Bitou Local Municipality |

Municipal Blue Drop Score 2011: **96.12%**

| Performance Area   | Systems | Plettenberg Bay   | Kurland   | Nature Valley   |
|--|---------|---|---|---|
|  |         |  |  |  |
| Water Safety Planning Process & Incident Response Management |         | 79  | 79  | 79  |
| Process Control, Maintenance & Management Skills             |         | 100   | 80  | 80  |
| Monitoring Programme   |         | 100   | 93  | 93  |
| Credibility of Sample Analyses                               |         | 100   | 98  | 94  |
| Submission of Results  |         | 100   | 100   | 100   |
| Drinking Water Quality Compliance                            |         | 100   | 100   | 100   |
| Performance Publication                                      |         | 100   | 100   | 100   |
| Asset Management   |         | 85  | 93  | 93  |
| Bonus Scores   |         | 1.6   | 2.1   | 2.2   |
| Penalties  |         | 0.3   | 0.3   | 0.3   |
| <b>Blue Drop Score (2011)</b>                                |         | <b>96.19%(↓)</b>  | <b>95.00%(↓)</b>  | <b>95.00%(↓)</b>  |
| Blue Drop Score (2010)                                       |         | 97.85%  | 96.55%  | 96.35%  |
| System Design Supply Capacity (ML/d)                         |         | 27  | 0.6   | 1   |
| System Operational Capacity                                  |         | 31%   | 50%   | 200%  |
| Population Served by System                                  |         | 40 000  | 2 500   | 40  |
| Ave. Daily Consumption per Capita (l)                        |         | 209   | 120   | >500  |
| Microbiological Compliance(12 months)                        |         | 100.00%   | 100.00%   | 100.00%   |
| Chemical Compliance(12 months)                               |         | 100.00%   | 100.00%   | 100.00%   |

### Regulatory Impression:

In spite of Blue Drop criteria becoming increasingly implementation-focused, Bitou Local Municipality once again impressed with a phenomenal performance, justifying the allocation of the prestigious certification for the 3 systems.

The inspectors conducted an on-site verification audit at the Plettenberg Bay water treatment plant and found it in an impeccable state. An amendment to the chlorine sampling point might be required to ensure optimum readings are obtained. The current point (sump) is not a favourable due to zero flow velocity noted in this part of the plant. The Blue Drop inspectors were rather impressed with the operations of the Plettenberg Bay: "The WTW is well managed and still operating under the design capacity. The process Controllers from this plant are well skilled, enthusiastic and passionate about their work."

The capacity challenges in Nature's Valley are noted. The plans to increase the capacity to balance the peak (holiday) season demand will be monitored to ensure that the risk of compromised treatment is mitigated.

Nevertheless an exceptional performance once again, leaving the Department with complete confidence in the manner drinking water quality is being managed within the Bitou Local Municipality.

|                           |   |
|---------------------------|---|
| Water Services Authority: | <b>Breede Valley Local Municipality</b> |
| Water Services Providers: | <b>Breede Valley Local Municipality</b> |

Municipal Blue Drop Score 2011: **85.93%**

| Performance Area   | Systems | Worcester        | Rawsonville      | Touwsrivier / Bokrivier |
|--|---------|------------------|------------------|-------------------------|
| Water Safety Planning Process & Incident Response Management |         | 94               | 92               | 70                      |
| Process Control, Maintenance & Management Skills             |         | 50               | 40               | 40                      |
| Monitoring Programme   |         | 69               | 71               | 66                      |
| Credibility of Sample Analyses                               |         | 70               | 57               | 57                      |
| Submission of Results  |         | 100              | 100              | 100                     |
| Drinking Water Quality Compliance                            |         | 90               | 90               | 90                      |
| Performance Publication                                      |         | 100              | 100              | 100                     |
| Asset Management   |         | 88               | 82               | 60                      |
| Bonus Scores   |         | 2.1              | 0                | 0                       |
| Penalties  |         | 0.1              | 0.1              | 0.1                     |
| <b>Blue Drop Score (2011)</b>                                |         | <b>86.55%(↑)</b> | <b>81.84%(↑)</b> | <b>74.69% (↑)</b>       |
| Blue Drop Score (2010)                                       |         | 82.90%           | 75.56%           | 70.38%                  |
| System Design Supply Capacity (MI/d)                         |         | 52               | 0.8              | 3                       |
| System Operational Capacity                                  |         | 68%              | 35%              | 110%                    |
| Population Served by System                                  |         | 100 000          | 15 000           | 10 000                  |
| Ave. Daily Consumption per Capita (l)                        |         | 354              | <50              | 330                     |
| Microbiological Compliance(12 months)                        |         | 100.00%          | 100.00%          | 100.00%                 |
| Chemical Compliance(12 months)                               |         | 100.00%          | 100.00%          | 100.00%                 |

| Performance Area   | Systems | De Doorns        | De Koppen / Fairy Glen |
|--|---------|------------------|------------------------|
| Water Safety Planning Process & Incident Response Management |         | 91               | 91                     |
| Process Control, Maintenance & Management Skills             |         | 80               | 40                     |
| Monitoring Programme   |         | 85               | 86                     |
| Credibility of Sample Analyses                               |         | 74               | 73                     |
| Submission of Results  |         | 100              | 50                     |
| Drinking Water Quality Compliance                            |         | 90               | 90                     |
| Performance Publication                                      |         | 100              | 100                    |
| Asset Management   |         | 97               | 67                     |
| Bonus Scores   |         | 0                | 2.5                    |
| Penalties  |         | 0.1              | 0.1                    |
| <b>Blue Drop Score (2011)</b>                                |         | <b>90.27%(↑)</b> | <b>82.03%(↑)</b>       |
| Blue Drop Score (2010)                                       |         | 67.38%           | NA                     |
| System Design Supply Capacity (MI/d)                         |         | 4.8              | 9                      |
| System Operational Capacity                                  |         | 26%              | NI                     |
| Population Served by System                                  |         | 40 000           | 6 000                  |
| Ave. Daily Consumption per Capita (l)                        |         | -                | -                      |
| Microbiological Compliance(12 months)                        |         | 100.00%          | 100.00%                |
| Chemical Compliance(12 months)                               |         | 100.00%          | 100.00%                |

#### Regulatory Impression:

Breede Valley Local Municipality can be satisfied with a commendable performance. The improvement since the previous assessment cycle indicates that this authority is on track towards the goal of Blue Drop certification. The DeDoorns system can be best to achieving this but since the monitoring programme only consisted of one chemical item and the Blue Drop certification was unfortunately not justified. (The filtration challenges were also noted)

The municipality is advised to take courage out of this performance and continue with the commitment portrayed during the assessment. The current water safety planning process is noted. This is a step in the right direction; another step towards excellence.

#### Findings

1. The Risk Assessment process needs to be refined to confirm the absence of protozoa in the raw water resources. Filtration as a control measure would become essential as should the risk assessment confirm the possibility of protozoa presence.
2. Attention must be given to the skills and qualification of those responsible for process controlling.
3. The risk of inadequate treatment at the Touwsrivier plant should be addressed. It is noted that this plant is operating well above its design capacity. Capital investment is required to ensure the safe supply of water to this constituency.

Municipal Blue Drop Score 2011: **73.01%**

| Performance Area   | Systems | Aniston <sup>a</sup><br>(Waenhuiskrans) | BredasdorpTown      | Elim Fontein<br>Water |
|--|---------|---|---------------------|-----------------------|
| Water Safety Planning Process & Incident Response Management |         | 77                                      | 67                  | 67                    |
| Process Control, Maintenance & Management Skills             |         | 100                                     | 60                  | 30                    |
| Monitoring Programme   |         | 93                                      | 87                  | 51                    |
| Credibility of Sample Analyses                               |         | 75                                      | 82                  | 91                    |
| Submission of Results  |         | 100                                     | 20                  | 100                   |
| Drinking Water Quality Compliance                            |         | 70                                      | 24                  | 93                    |
| Performance Publication                                      |         | 75                                      | 80                  | 80                    |
| Asset Management   |         | 66                                      | 69                  | 70                    |
| Bonus Scores   |         | 5                                       | 8.7                 | 4.0                   |
| Penalties  |         | 0.2                                     | 1.7                 | 1.6                   |
| <b>Blue Drop Score (2011)</b>                                |         | <b>82.93%(↑)</b>                        | <b>63.97%(↓)</b>    | <b>77.87%(↑)</b>      |
| Blue Drop Score (2010)                                       |         | 78.13%                                  | 78.13%              | N/A                   |
| System Design Supply Capacity (MI/d)                         |         | 4.3                                     | 8                   | NI                    |
| System Operational Capacity                                  |         | 65%                                     | 50%                 | NI                    |
| Population Served by System                                  |         | 1 831 (8000)                            | 16 811              | 1 666                 |
| Ave. Daily Consumption per Capita (l)                        |         | 350                                     | 237                 | -                     |
| Microbiological Compliance(12 months)                        |         | 98.26%                                  | 93.94% (10 months)  | 100.00%               |
| Chemical Compliance(12 months)                               |         | 86.06%                                  | 100.00% (9 months)  | 100.00%               |
| Performance Area   | Systems | L'Agulhus                               | Napier              | Stuisbaai             |
| Water Safety Planning Process & Incident Response Management |         | 67                                      | 67                  | 67                    |
| Process Control, Maintenance & Management Skills             |         | 30                                      | 70                  | 30                    |
| Monitoring Programme   |         | 67                                      | 57                  | 42                    |
| Credibility of Sample Analyses                               |         | 70                                      | 77                  | 74                    |
| Submission of Results  |         | 100                                     | 100                 | 100                   |
| Drinking Water Quality Compliance                            |         | 100                                     | 100                 | 15                    |
| Performance Publication                                      |         | 80                                      | 80                  | 80                    |
| Asset Management   |         | 70                                      | 40                  | 70                    |
| Bonus Scores   |         | 5.7                                     | 4.3                 | 12.2                  |
| Penalties  |         | 1.4                                     | 1.5                 | 1.4                   |
| <b>Blue Drop Score (2011)</b>                                |         | <b>82.35%(↑)</b>                        | <b>79.86%(↑)</b>    | <b>61.10%(↓)</b>      |
| Blue Drop Score (2010)                                       |         | 76.13%                                  | 75.50%              | 76.38%                |
| System Design Supply Capacity (MI/d)                         |         | NI                                      | 2                   | NI                    |
| System Operational Capacity                                  |         | NI                                      | 90%                 | NI                    |
| Population Served by System                                  |         | 10 000                                  | 4 663               | 3 650                 |
| Ave. Daily Consumption per Capita (l)                        |         | -                                       | 386                 | -                     |
| Microbiological Compliance(12 months)                        |         | 100.00% (10 months)                     | 100.00% (11 months) | 91.30% (8 months)     |
| Chemical Compliance(12 months)                               |         | 100.00% (6 months)                      | 100.00% (7 months)  | 100.00% (4 months)    |

| Performance Area   | Systems | Suiderstrand       | Protem <sup>a</sup> | Klipdale <sup>a</sup> |
|--|---------|--------------------|---------------------|-----------------------|
| Water Safety Planning Process & Incident Response Management |         | 67                 | 77                  | 77                    |
| Process Control, Maintenance & Management Skills             |         | 25                 | 100                 | 75                    |
| Monitoring Programme   |         | 49                 | 68                  | 68                    |
| Credibility of Sample Analyses                               |         | 70                 | 68                  | 68                    |
| Submission of Results  |         | 100                | 100                 | 0                     |
| Drinking Water Quality Compliance                            |         | 55                 | 55                  | 85                    |
| Performance Publication                                      |         | 80                 | 80                  | 80                    |
| Asset Management   |         | 70                 | 88                  | 96                    |
| Bonus Scores   |         | 9.5                | 11.3                | 11.3                  |
| Penalties  |         | 1.4                | 0                   | 0                     |
| <b>Blue Drop Score (2011)</b>                                |         | <b>70.40%(↓)</b>   | <b>80.27%(↓)</b>    | <b>81.95%(↓)</b>      |
| Blue Drop Score (2010)                                       |         | 77.00%             | 94.80%              | 94.80%                |
| System Design Supply Capacity (MI/d)                         |         | NI                 | NI                  | NI                    |
| System Operational Capacity                                  |         | NI                 | NI                  | NI                    |
| Population Served by System                                  |         | 1 000              | 300                 | 300                   |
| Ave. Daily Consumption per Capita (l)                        |         | -                  | -                   | -                     |
| Microbiological Compliance(12 months)                        |         | 94.44% (11 months) | 100.00% (5 months)  | 100.00% (5 months)    |
| Chemical Compliance(12 months)                               |         | 100.00% (5 months) | 77.93% (5 months)   | 100.00% (5 months)    |

#### Regulatory Impression:

While a reasonably good performance was recorded during this Blue Drop assessment, it is unfortunate that an overall decline of 5% is noted. This is mainly due to the Water Safety Planning process which was not implemented according to expectations. Nevertheless there is sufficient reason to be optimistic that both Cape Agulhus and Overberg Water will improve in implementation of their risk management approach soon.

The biggest disappointment would be the performance of the Proteon and Klipdale system that dropped from Blue Drop contentions. Yet are these systems rated as excellent performances. The erratic monitoring together with sub-standard chemical compliance is found to be the areas that require attention.

#### Findings

1. Data submission is not upto standard and this comprises the actual performance of systems. Both Water Services Authority and Provider are encouraged to ensure punctuality (at least monthly) submission of analyses to the Department.
2. Process Optimisation is required to improve chemical compliance soonest on the Ruensveld East water treatment system. This is a sacrosanct requirement.
3. The lack of information on treatment capacity and operational status portrays a less impressive picture on the asset management performance of both institutions. In addition, the daily consumption projections are rather high which raises concern on unaccounted for water.



|                           |                                     |
|---------------------------|-------------------------------------|
| Water Services Authority: | <b>Cederberg Local Municipality</b> |
| Water Services Providers: | <b>Cederberg Local Municipality</b> |

Municipal Blue Drop Score 2011: **51.05%**

| Performance Area   | Systems | Clanwilliam         | Citrusdal         | LambertsBay       |
|--|---------|---------------------|-------------------|-------------------|
| Water Safety Planning Process & Incident Response Management |         | 19                  | 19                | 19                |
| Process Control, Maintenance & Management Skills             |         | 55                  | 33                | 25                |
| Monitoring Programme   |         | 43                  | 58                | 70                |
| Credibility of Sample Analyses                               |         | 63                  | 66                | 65                |
| Submission of Results  |         | 100                 | 100               | 100               |
| Drinking Water Quality Compliance                            |         | 20                  | 78                | 78                |
| Performance Publication                                      |         | 25                  | 25                | 25                |
| Asset Management   |         | 73                  | 55                | 63                |
| Bonus Scores   |         | 0                   | 0                 | 0                 |
| Penalties  |         | 1.6                 | 1.3               | 1.6               |
| <b>Blue Drop Score (2011)</b>                                |         | <b>40.22% (↓)</b>   | <b>55.76% (↓)</b> | <b>55.76% (↓)</b> |
| Blue Drop Score (2010)                                       |         | 60.56%              | 61.25%            | 66.81%            |
| System Design Supply Capacity (MI/d)                         |         | 2.1                 | 2                 | 2                 |
| System Operational Capacity                                  |         | 76%                 | 65%               | 70%               |
| Population Served by System                                  |         | 7 481               | 7 014             | 5 864             |
| Ave. Daily Consumption per Capita (l)                        |         | 213                 | 185               | 238               |
| Microbiological Compliance(12 months)                        |         | 84.62%              | 92.31%            | 100.00%           |
| Chemical Compliance(12 months)                               |         | No data             | No data           | No data           |
| Performance Area   | Systems | ElandsBay           | Graafwater        | Leipoldtsville    |
| Water Safety Planning Process & Incident Response Management |         | 19                  | 19                | 19                |
| Process Control, Maintenance & Management Skills             |         | 35                  | 51                | 28                |
| Monitoring Programme   |         | 48                  | 75                | 59                |
| Credibility of Sample Analyses                               |         | 66                  | 65                | 65                |
| Submission of Results  |         | 75                  | 20                | 100               |
| Drinking Water Quality Compliance                            |         | 78                  | 66                | 78                |
| Performance Publication                                      |         | 25                  | 25                | 25                |
| Asset Management   |         | 63                  | 63                | 63                |
| Bonus Scores   |         | 0                   | 0                 | 0                 |
| Penalties  |         | 1.6                 | 1.8               | 0.9               |
| <b>Blue Drop Score (2011)</b>                                |         | <b>53.33% (↓)</b>   | <b>51.49% (↓)</b> | <b>54.89% (↓)</b> |
| Blue Drop Score (2010)                                       |         | 58.06%              | 66.06%            | 67.19%            |
| System Design Supply Capacity (MI/d)                         |         | 1                   | 1.5               | NI                |
| System Operational Capacity                                  |         | 70%                 | 67%               | NI                |
| Population Served by System                                  |         | 3 641               | 2 423             | 1 451             |
| Ave. Daily Consumption per Capita (l)                        |         | 192                 | 414               | -                 |
| Microbiological Compliance(12 months)                        |         | 100.00% (11 months) | 100.00%           | 100.00%           |
| Chemical Compliance(12 months)                               |         | No data             | No data           | No data           |

#### Regulatory Impression:

The performance of Cederberg Local Municipality is less impressive with an all round decline in Blue Drop Performance since 2010. This decline is mostly due to the lack of a proper water safety planning process. The inspectors found the water safety plan and risk assessment not to have been completed without the necessary care and thoroughness required to ensure that the process fulfil the purpose of its intended. Nevertheless there remains sufficient reason to remain encouraged since the municipality representative at the confirmation assessment portrayed the promise of being committed to manage drinking water quality according to expectations. It is evident though that the promise will only materialise should this commitment be supported internally.

It is also encouraging to note that the microbiological quality of most waters supplies improved but unfortunately Clanwilliam and Citrusdal requires urgent attention. Records suggest that the municipality was unable to continuously provide drinking water that complied with the national standard in these two systems.

There is a need for improvement triggered by a proper risk assessment as part of the water safety planning process that is to inform both water treatment and monitoring. Currently the lack of monitoring for chemical elements, should be regarded as significant risk to effective drinking water quality management.

#### Findings

1. The aquifer used as source for Leipoldtsville is not managed adequately since abstraction occurs without any base information on the geo-hydrological yield of the borehole. Without this information the risk exists that over-abstraction patterns could be followed which may cause permanent damage to the aquifer.




Municipal Blue Drop Score 2011: **11.50%**

| Performance Area   | Systems | Murraysburg      |
|--|---------|------------------|
| Water Safety Planning Process & Incident Response Management |         | 0                |
| Process Control, Maintenance & Management Skills             |         | 0                |
| Monitoring Programme   |         | 0                |
| Credibility of Sample Analyses                               |         | 40               |
| Submission of Results  |         | 100              |
| Drinking Water Quality Compliance                            |         | 15               |
| Performance Publication                                      |         | 0                |
| Asset Management   |         | 0                |
| Bonus Scores   |         | 0                |
| Penalties  |         | 0                |
| <b>Blue Drop Score (2011)</b>                                |         | <b>11.50%(↓)</b> |
| Blue Drop Score (2010)                                       |         | 45.63%           |
| System Design Supply Capacity (MI/d)                         |         | NI               |
| System Operational Capacity                                  |         | NI               |
| Population Served by System                                  |         | 6 682            |
| Ave. Daily Consumption per Capita (l)                        |         | -                |
| Microbiological Compliance(12 months)                        |         | 83.33%           |
| Chemical Compliance(12 months)                               |         | No data          |

#### Regulatory Impression:

It is with great regret noted that massive decline in Blue Drop performance was measured during the recent assessments for Central Karoo District Municipality since the previous reporting cycle. The Department is not indifferent towards the challenges faced by this water services authority but expects a better performance to get on par with neighbouring municipalities that shares similar circumstances. The municipality should note that it is in the best interest of public health in Murraysburg that serious attention is given to drinking water quality management. An overall improvement is required.

Municipal Blue Drop Score 2011: **97.61%**

| Performance Area   | Systems | City of Cape Metropolitan   |
|--|---------|---|
|  |         |  |
| Water Safety Planning Process & Incident Response Management |         | 95  |
| Process Control, Maintenance & Management Skills             |         | 90  |
| Monitoring Programme   |         | 100   |
| Credibility of Sample Analyses                               |         | 100   |
| Submission of Results  |         | 100   |
| Drinking Water Quality Compliance                            |         | 100   |
| Performance Publication                                      |         | 100   |
| Asset Management   |         | 90  |
| Bonus Scores   |         | 1.1   |
| Penalties  |         | 0   |
| <b>Blue Drop Score (2011)</b>                                |         | <b>97.61% (↓)</b>   |
| Blue Drop Score (2010)                                       |         | 98.18%  |
| System Design Supply Capacity (MI/d)                         |         | 1711 (combined)   |
| System Operational Capacity                                  |         | 53% (combined)  |
| Population Served by System                                  |         | 3 500 000   |
| Ave. Daily Consumption per Capita (l)                        |         | 259   |
| Microbiological Compliance(12 months)                        |         | 99.50%  |
| Chemical Compliance(12 months)                               |         | 99.48%  |

#### Regulatory Impression:

Officiale and management alike displayed exemplary dedication to drinking water quality management during the latest Blue Drop assessment. The inspectors were encouraged by the cooperative manner in which the assessment was conducted, this was also evident in the willingness shown to attend processes and programme found to be out of sync with national requirements.

The Department wishes to congratulate the City for achieving Blue Drop certification for the third year in a row. This in itself is a remarkable achievement.

The Lead Inspector noted: "Cape Town has again impressed with their commitment to water quality.

The systems presented for assessment has generally improved since the last certification cycle and promises to show further improvement in years to come. Some issues were raised in the assessment which should receive priority attention. These include improved incident register management with a periodical dedicated review of recurring incidents with a view on addressing those incidents, further development of operational guidance manuals, improved management of problematic sample points in informal settlements, and a review and resolution of the interface issues between the Metro's LIMS system and the Department's BD system. The Metro's current ongoing technical review programme for its treatment plants is acknowledged and encouraged. The Metro's plants and laboratories are first rate and its management team is providing clear evidence of their commitment to improving overall performance."

Municipal Blue Drop Score 2011: **95.72%**

| Performance Area   | Systems | Bainskloof       | Drakenstein <sup>a</sup> | Gouda <sup>b</sup>   |
|--|---------|------------------|--------------------------|----------------------|
| Water Safety Planning Process & Incident Response Management |         | 95               | 95                       | 91                   |
| Process Control, Maintenance & Management Skills             |         | 90               | 80                       | 80                   |
| Monitoring Programme   |         | 93               | 93                       | 100                  |
| Credibility of Sample Analyses                               |         | 83               | 93                       | 75                   |
| Submission of Results  |         | 100              | 100                      | 100                  |
| Drinking Water Quality Compliance                            |         | 100              | 100                      | 100                  |
| Performance Publication                                      |         | 100              | 100                      | 100                  |
| Asset Management   |         | 93               | 85                       | 93                   |
| Bonus Scores   |         | 1.4              | 1.8                      | 1.7                  |
| Penalties  |         | 0                | 0                        | 0                    |
| <b>Blue Drop Score (2011)</b>                                |         | <b>96.80%(↑)</b> | <b>95.71%(↑)</b>         | <b>95.97% (↑)</b>    |
| Blue Drop Score (2010)                                       |         | 72%              | 95%                      | 95.25%               |
| System Design Supply Capacity (MI/d)                         |         | 0.4              | 270 (combined)           | 29.1                 |
| System Operational Capacity                                  |         | 32.5%            | 73%                      | 58%                  |
| Population Served by System                                  |         | 77               | 188 918                  | 3 082                |
| Ave. Daily Consumption per Capita (l)                        |         | >500             | >500                     | >500                 |
| Microbiological Compliance(12 months)                        |         | 100.00%          | 99.63%; WSP: 99.50%      | 100.00%; WSP: 97.78% |
| Chemical Compliance(12 months)                               |         | 97.61%           | 99.93%; WSP: 99.48%      | 96.91%; WSP: 98.21%  |

| Performance Area   | Systems | Hermon <sup>a</sup>  | Saron             |
|--|---------|----------------------|-------------------|
| Water Safety Planning Process & Incident Response Management |         | 94                   | 94                |
| Process Control, Maintenance & Management Skills             |         | 50                   | 80                |
| Monitoring Programme   |         | 89                   | 81                |
| Credibility of Sample Analyses                               |         | 41                   | 75                |
| Submission of Results  |         | 100                  | 100               |
| Drinking Water Quality Compliance                            |         | 85                   | 85                |
| Performance Publication                                      |         | 100                  | 100               |
| Asset Management   |         | 85                   | 93                |
| Bonus Scores   |         | 5.0                  | 3.5               |
| Penalties  |         | 0.3                  | 0.3               |
| <b>Blue Drop Score (2011)</b>                                |         | <b>88.25% (↓)</b>    | <b>91.79% (↓)</b> |
| Blue Drop Score (2010)                                       |         | 90.5%                | 97.25%            |
| System Design Supply Capacity (MI/d)                         |         | 0.4                  | 1.5               |
| System Operational Capacity                                  |         | 33%                  | 111%              |
| Population Served by System                                  |         | 478                  | 7 419             |
| Ave. Daily Consumption per Capita (l)                        |         | 276                  | 224               |
| Microbiological Compliance(12 months)                        |         | 100.00%; WSP: 99.50% | 100.00%           |
| Chemical Compliance(12 months)                               |         | 100.00%; WSP: 99.48% | 100.00%           |

#### Regulatory Impression:

Together with bulk providers, City of Cape Town and West Coast DM, the Local Municipality of Drakenstein once again impressed with an excellent Blue Drop performance. Whilst 3 systems obtained the coveted certification status the remaining 2 were also found to be performing extremely well.

In the words of the Lead Inspector: "Drakenstein LM showed extraordinary commitment to respond to the deficiencies identified during the assessment. They showcased all the characteristics of a team fully committed to ensuring compliance with the provision of the Blue Drop Certification. The Municipality has implemented an intensive compliance monitoring due to the fact that it operates in a high risk area with the ever deteriorating status of the Berg River."

There is concern for the operations of the Saron works which is operating well beyond its design capacity. Nevertheless the Department notes the capacity expansion programme which includes additional capacity. It should be noted that water losses in this area is calculated as 28%. Unfortunately this system also lost its Blue Drop status, mostly due to inconsistent chemical monitoring.

Municipal Blue Drop Score 2011: **18.67%**

| Performance Area   | Systems | Haarlem           | Uniondale         |
|--|---------|-------------------|-------------------|
| Water Safety Planning Process & Incident Response Management |         | 12                | 9                 |
| Process Control, Maintenance & Management Skills             |         | 13                | 5                 |
| Monitoring Programme   |         | 28                | 42                |
| Credibility of Sample Analyses                               |         | 28                | 29                |
| Submission of Results  |         | 0                 | 0                 |
| Drinking Water Quality Compliance                            |         | 10                | 34                |
| Performance Publication                                      |         | 0                 | 0                 |
| Asset Management   |         | 0                 | 0                 |
| Bonus Scores   |         | 4.5               | 4.5               |
| Penalties  |         | 0                 | 0                 |
| <b>Blue Drop Score (2011)</b>                                |         | <b>14.81%(↓)</b>  | <b>22.18%(↓)</b>  |
| Blue Drop Score (2010)                                       |         | 23.53%            | 23.53%            |
| System Design Supply Capacity (MI/d)                         |         | 1                 | 1.1               |
| System Operational Capacity                                  |         | NI                | 100%              |
| Population Served by System                                  |         | 2 500             | 3 500             |
| Ave. Daily Consumption per Capita (l)                        |         | -                 | 314               |
| Microbiological Compliance(12 months)                        |         | 80.00% (8 months) | 94.44% (8 months) |
| Chemical Compliance(12 months)                               |         | No data           | No data           |

#### Regulatory Impression:

It is rather clear that Eden District Municipality is not prioritising the management of drinking water quality as one of its core responsibilities. However the municipality is adding great value within its overall area of jurisdiction by ensuring good environmental health. The Blue Drop inspectors were left unimpressed with the general lack of information which compromised any chance of a good performance.

The reported performance suggests that an overall improvement is required to ensure that the residents of Haarlem and Uniondale are not at risk. Evidently the skills are in place to realise this expectation.

The municipality is encouraged to ensure that the BDS registered monitoring programme is aligned to the realisation programme being implemented. The current situation will always negatively affect Blue Drop inspections.

Municipal Blue Drop Score 2011: **96.26%**

| Performance Area   | Systems | George           | Wilderness       |
|--|---------|------------------|------------------|
| Water Safety Planning Process & Incident Response Management |         | 100              | 100              |
| Process Control, Maintenance & Management Skills             |         | 100              | 80               |
| Monitoring Programme   |         | 100              | 93               |
| Credibility of Sample Analyses                               |         | 66               | 71               |
| Submission of Results  |         | 100              | 100              |
| Drinking Water Quality Compliance                            |         | 100              | 100              |
| Performance Publication                                      |         | 100              | 100              |
| Asset Management   |         | 78               | 81               |
| Bonus Scores   |         | 1.4              | 2.2              |
| Penalties  |         | 0                | 0                |
| <b>Blue Drop Score (2011)</b>                                |         | <b>96.32%(↓)</b> | <b>95.00%(↑)</b> |
| Blue Drop Score (2010)                                       |         | 97.38%           | 89.69%           |
| System Design Supply Capacity (MI/d)                         |         | 45               | 1.8              |
| System Operational Capacity                                  |         | 54%              | 57%              |
| Population Served by System                                  |         | 161 088          | 18 500           |
| Ave. Daily Consumption per Capita (l)                        |         | 151              | 55               |
| Microbiological Compliance(12 months)                        |         | 99.68%           | 97.06%           |
| Chemical Compliance(12 months)                               |         | 99.42%           | 98.05%           |

#### Regulatory Impression:

George Local Municipality once again did exceptionally well during the assessments; in the process retaining Blue Drop Certification for the George system, but a disappointing Wilderness towards the coveted achievement.

In the words of the Lead Inspector: "The WSA was well prepared and is committed to the Blue Drop programme. They have competent people looking after the plant and distribution system. It was a pleasure to assess them."

The Municipality is encouraged to proceed on this new path of excellence since this achievement is not guaranteed but will only be maintained. The municipality must also ensure that the data submission to the Department is compliant with BDS requirements. Failure to do so might lead to deterioration of this inspirational experience.

|                           |                             |
|---------------------------|-----------------------------|
| Water Services Authority: | Hessequa Local Municipality |
| Water Services Providers: | Hessequa Local Municipality |

Municipal Blue Drop Score 2011: **14.10%**

| Performance Area   | Systems | Albertina         | Gouritsmond       | Heidelberg        | Jongens-<br>fontein |
|--|---------|-------------------|-------------------|-------------------|---------------------|
| Water Safety Planning Process & Incident Response Management |         | 14                | 0                 | 0                 | 0                   |
| Process Control, Maintenance & Management Skills             |         | 14                | 0                 | 0                 | 0                   |
| Monitoring Programme   |         | 4                 | 4                 | 4                 | 4                   |
| Credibility of Sample Analyses                               |         | 10                | 0                 | 0                 | 0                   |
| Submission of Results  |         | 0                 | 0                 | 0                 | 0                   |
| Drinking Water Quality Compliance                            |         | 0                 | 0                 | 0                 | 0                   |
| Performance Publication                                      |         | 0                 | 0                 | 50                | 0                   |
| Asset Management   |         | 32                | 0                 | 0                 | 0                   |
| Bonus Scores   |         | 0                 | 0                 | 0                 | 0                   |
| Penalties  |         | 0.3               | 0.3               | 0.3               | 0.3                 |
| <b>Blue Drop Score (2011)</b>                                |         | <b>09.21% (↓)</b> | <b>00.40% (↓)</b> | <b>15.40% (↓)</b> | <b>00.40% (↓)</b>   |
| Blue Drop Score (2010)                                       |         | 41.25%            | 24.75%            | 92.88%            | 25.75%              |
| System Design Supply Capacity (MI/d)                         |         | NI                | NI                | NI                | NI                  |
| System Operational Capacity                                  |         | NI                | NI                | NI                | NI                  |
| Population Served by System                                  |         | 0                 | 0                 | 0                 | 0                   |
| Ave. Daily Consumption per Capita (l)                        |         | -                 | -                 | -                 | -                   |
| Microbiological Compliance(12 months)                        |         | 100% (2 months)   | 100% (2 months)   | 100% (1 month)    | 100% (2 months)     |
| Chemical Compliance(12 months)                               |         | 100% (2 months)   | 100% (2 months)   | 66.67% (2 months) | 100% (3 months)     |
| Performance Area   | Systems | Riversdale        | Slangrivier       | Stillbaai         | Witsand             |
| Water Safety Planning Process & Incident Response Management |         | 14                | 0                 | 8                 | 8                   |
| Process Control, Maintenance & Management Skills             |         | 55                | 0                 | 34                | 0                   |
| Monitoring Programme   |         | 1                 | 4                 | 4                 | 2                   |
| Credibility of Sample Analyses                               |         | 2                 | 0                 | 4                 | 14                  |
| Submission of Results  |         | 0                 | 0                 | 0                 | 0                   |
| Drinking Water Quality Compliance                            |         | 50                | 50                | 65                | 50                  |
| Performance Publication                                      |         | 0                 | 0                 | 0                 | 0                   |
| Asset Management   |         | 28                | 0                 | 18                | 0                   |
| Bonus Scores   |         | 0                 | 0                 | 0                 | 0                   |
| Penalties  |         | 0.6               | 0.6               | 0.5               | 0.6                 |
| <b>Blue Drop Score (2011)</b>                                |         | <b>26.90% (↓)</b> | <b>15.43% (↓)</b> | <b>27.28% (↓)</b> | <b>17.08% (↓)</b>   |
| Blue Drop Score (2010)                                       |         | 53.38%            | 92.88%            | 32.13%            | 92.88%              |
| System Design Supply Capacity (MI/d)                         |         | NI                | NI                | NI                | NI                  |
| System Operational Capacity                                  |         | NI                | NI                | NI                | NI                  |
| Population Served by System                                  |         | 51 568            | 0                 | 0                 | 0                   |
| Ave. Daily Consumption per Capita (l)                        |         | -                 | -                 | -                 | -                   |
| Microbiological Compliance(12 months)                        |         | 100% (2 months)   | 100% (2 months)   | 100% (2 months)   | 100% (1 month)      |
| Chemical Compliance(12 months)                               |         | 83.33% (2 months) | 75.00% (3 months) | 100% (3 months)   | 75.00% (1 month)    |

#### Regulatory Impression:

The non-compliance of Hessequa Local Municipality off-takers to adhere to regulatory requirements set by the Department to safeguard public health is lamentable; hence the poor Blue Drop performance. The municipality is required to ensure that performance agreements of these off-takers include crucial elements such as continuous drinking water quality monitoring, and to take the necessary disciplinary steps once public health is at risk due to non-performance. It might be that workover bad could prevent that sufficient time is given to drinking water quality management but unfortunately it cannot be justified when such action could lead to public health being compromised.

According to records this municipality only monitored drinking water quality twice in 2010 (April/May and July). Due to this erratic monitoring pattern it is unfortunate that both municipality and communities won't have access to information to verify the quality of the water supplied.

Municipal Blue Drop Score 2011: **55.50%**

| Performance Area   | Systems | Calitzdorp       | Ladismith        | Van Wyksdorp      | Zoar             |
|--|---------|------------------|------------------|-------------------|------------------|
| Water Safety Planning Process & Incident Response Management |         | 64               | 66               | 66                | 66               |
| Process Control, Maintenance & Management Skills             |         | 19               | 55               | 39                | 59               |
| Monitoring Programme   |         | 66               | 64               | 24                | 32               |
| Credibility of Sample Analyses                               |         | 100              | 100              | 100               | 100              |
| Submission of Results  |         | 20               | 100              | 0                 | 0                |
| Drinking Water Quality Compliance                            |         | 82               | 93               | 0                 | 5                |
| Performance Publication                                      |         | 25               | 25               | 25                | 25               |
| Asset Management   |         | 55               | 55               | 52                | 52               |
| Bonus Scores   |         | 0                | 0                | 0                 | 0                |
| Penalties  |         | 1.9              | 1.7              | 1.6               | 1.9              |
| <b>Blue Drop Score (2011)</b>                                |         | <b>60.33%(↑)</b> | <b>70.28%(↑)</b> | <b>31.53%(↑)</b>  | <b>35.75%(↑)</b> |
| Blue Drop Score (2010)                                       |         | 13.65%           | 32.38%           | 09.73%            | 21.88%           |
| System Design Supply Capacity (MI/d)                         |         | 42               | 3.6              | 0.15              | 1.4              |
| System Operational Capacity                                  |         | NI               | NI               | NI                | NI               |
| Population Served by System                                  |         | 9 000            | 10 000           | 1 000             | 7 000            |
| Ave. Daily Consumption per Capita (l)                        |         | -                | -                | -0                | -                |
| Microbiological Compliance(12 months)                        |         | 100.00%          | 100% (9 months)  | 66.67% (9 months) | 87.50% (7months) |
| Chemical Compliance(12 months)                               |         | 100% (9 months)  | 100% (11 months) | No data           | 100% (8 months)  |

#### Regulatory Impression:

The improvement recorded since the 2010 assessment is certainly praiseworthy. As with the Green Drop this municipality evidently committed itself to adhere to the regulatory criteria in spite of limited resources but with impressive commitment. However there remain specific areas (Van Wyksdorp and Zoar) demanding urgent attention though. Compliance records in these areas are certainly not favourable.

The inspectors found that there was a significant improvement in the performance subsequent to the Confirmation session. This is well evidenced and serves as testimony that the consultative audits of the Blue Drop programme are adding value.

#### Findings

1. The poor compliance record noted in Van Wyksdorp is based on a limited set of data, which suggests that it is paramount that sampling is increased and that disinfection be considered.
2. The Belegdonated plant in Van Wyksdorp requires to be subjected to process optimisation to ensure that the final water quality is improved.

Municipal Blue Drop Score 2011: **89.76%**

| Performance Area   | Systems | BuffaloBay        | Karagara          | Knysna            |
|--|---------|-------------------|-------------------|-------------------|
| Water Safety Planning Process & Incident Response Management |         | 66                | 71                | 67                |
| Process Control, Maintenance & Management Skills             |         | 76                | 80                | 96                |
| Monitoring Programme   |         | 81                | 81                | 81                |
| Credibility of Sample Analyses                               |         | 100               | 100               | 100               |
| Submission of Results  |         | 100               | 100               | 100               |
| Drinking Water Quality Compliance                            |         | 70                | 100               | 90                |
| Performance Publication                                      |         | 100               | 100               | 100               |
| Asset Management   |         | 70                | 85                | 78                |
| Bonus Scores   |         | 6.8               | 3.1               | 4.1               |
| Penalties  |         | 1.8               | 1.5               | 1.5               |
| <b>Blue Drop Score (2011)</b>                                |         | <b>84.01% (↑)</b> | <b>92.62% (↓)</b> | <b>90.38% (↑)</b> |
| Blue Drop Score (2010)                                       |         | 63.73%            | 96.62%            | 82.73%            |
| System Design Supply Capacity (MI/d)                         |         | 0.95              | 0.79              | 33.5              |
| System Operational Capacity                                  |         | 13%               | 19%               | 27%               |
| Population Served by System                                  |         | 1 000             | 4 000             | 42 125            |
| Ave. Daily Consumption per Capita (l)                        |         | 124               | <50               | 215               |
| Microbiological Compliance(12 months)                        |         | 100.00%           | 100.00%           | 97.14%            |
| Chemical Compliance(12 months)                               |         | 80.00%            | 94.55%            | 94.40%            |

| Performance Area   | Systems | Rheemendal        | Sedgefield        |
|--|---------|-------------------|-------------------|
| Water Safety Planning Process & Incident Response Management |         | 72                | 75                |
| Process Control, Maintenance & Management Skills             |         | 78                | 86                |
| Monitoring Programme   |         | 81                | 81                |
| Credibility of Sample Analyses                               |         | 100               | 100               |
| Submission of Results  |         | 100               | 50                |
| Drinking Water Quality Compliance                            |         | 70                | 95                |
| Performance Publication                                      |         | 100               | 100               |
| Asset Management   |         | 70                | 78                |
| Bonus Scores   |         | 6.5               | 5.2               |
| Penalties  |         | 1.8               | 1.9               |
| <b>Blue Drop Score (2011)</b>                                |         | <b>84.67% (↓)</b> | <b>89.87% (↓)</b> |
| Blue Drop Score (2010)                                       |         | 92.98%            | 91.85%            |
| System Design Supply Capacity (MI/d)                         |         | 0.648             | 4                 |
| System Operational Capacity                                  |         | 39%               | 70%               |
| Population Served by System                                  |         | 3 500             | 10 000            |
| Ave. Daily Consumption per Capita (l)                        |         | 72                | 280               |
| Microbiological Compliance(12 months)                        |         | 100.00%           | 100.00%           |
| Chemical Compliance(12 months)                               |         | 77.78%            | 96.77%            |

### Regulatory Impression:

The Blue Drop performance of the Knysna Local Municipality is noted once again as rather impressive and has performed better than most municipalities nationally. Once again the scores serve as proof of overall Blue Drop status being imminent.

However a slight overall decline caused the Karatara system to lose its Blue Drop status. This decline could be accounted to the status of the water safety planning that remained unchanged since this previous assessment in 2010. In spite of high commitment levels portrayed by officials, it is with regret that the Department noted that recommendations made during the late 2010 assessment with regards to the Water Safety Plan process was not acted upon. This detrimentally affected the scores that could have been even more impressive than what is currently is.

It is hereby repeated that the water safety planning process is to inform an amendment of the monitoring programme to include elements found problematic in the risk assessment. Even though not yet what it is supposed to be, the significant improvement in Action is noted.

### Findings

1. Some problematic elements that surfaced during the year must be investigated as part of a detailed risk assessment to ensure that adequate control measures are put in place.
2. The inspectors found that the Mercury results (even though within acceptable limits) were omitted from BDS submission. A penalty was not applied for this but it is being reiterated that the submission of all analyses results are compulsory.

Municipal Blue Drop Score 2011: **80.54%**

| Performance Area   | Systems | Laingsburg Reservoir | Matjiesfontein Reservoir |
|--|---------|----------------------|--------------------------|
|  |         |                      |                          |
| Water Safety Planning Process & Incident Response Management |         | 90                   | 90                       |
| Process Control, Maintenance & Management Skills             |         | 90                   | 90                       |
| Monitoring Programme   |         | 81                   | 81                       |
| Credibility of Sample Analyses                               |         | 73                   | 76                       |
| Submission of Results  |         | 100                  | 50                       |
| Drinking Water Quality Compliance                            |         | 85                   | 20                       |
| Performance Publication                                      |         | 25                   | 25                       |
| Asset Management   |         | 93                   | 93                       |
| Bonus Scores   |         | 2.5                  | 5.5                      |
| Penalties  |         | 0.4                  | 0.1                      |
| <b>Blue Drop Score (2011)</b>                                |         | <b>83.69% (↑)</b>    | <b>64.78% (-→)</b>       |
| Blue Drop Score (2010)                                       |         | 63.13%               | 64.63%                   |
| System Design Supply Capacity (ML/d)                         |         | 0.5                  | 0.5                      |
| System Operational Capacity                                  |         | NI                   | NI                       |
| Population Served by System                                  |         | 6 500                | 500                      |
| Ave. Daily Consumption per Capita (l)                        |         | -                    | -                        |
| Microbiological Compliance(12 months)                        |         | 97.53%               | 90.91% (11 months)       |
| Chemical Compliance(12 months)                               |         | 100.00% (1 month)    | 100.00% (1 month)        |

### Regulatory Impression:

The Laingsburg Local Municipality continues to impress with its diligent quest towards improvement. The Blue Drop scores achieved confirm that current performance is definitely on the incline towards excellence which is commendable since this would be in spite of the challenges faced.

The inspectors were impressed with the remarkable effort to develop and implement a water safety planning process. The municipality is encouraged not to rest on its laurels in this regard since the implementation of this risk based process is all important and will have wide-spread benefits if implemented correctly.

### Findings

1. The low level of compliance in the Matjiesfontein system suggest that disinfection should be prioritised to ensure that acceptable microbiological compliance is obtained. The filtering chlorinators in the reservoirs might not be sufficient.

|                           |                                     |
|---------------------------|-------------------------------------|
| Water Services Authority: | <b>Langeberg Local Municipality</b> |
| Water Services Providers: | <b>Langeberg Local Municipality</b> |

Municipal Blue Drop Score 2011: **32.39%**

| Performance Area   | Systems | Ashton            | Bonnievale        | Montague          |
|--|---------|-------------------|-------------------|-------------------|
| Water Safety Planning Process & Incident Response Management |         | 5                 | 5                 | 9                 |
| Process Control, Maintenance & Management Skills             |         | 23                | 23                | 23                |
| Monitoring Programme   |         | 70                | 70                | 66                |
| Credibility of Sample Analyses                               |         | 60                | 60                | 60                |
| Submission of Results  |         | 100               | 100               | 100               |
| Drinking Water Quality Compliance                            |         | 20                | 20                | 20                |
| Performance Publication                                      |         | 0                 | 0                 | 0                 |
| Asset Management   |         | 52                | 52                | 52                |
| Bonus Scores   |         | 1.7               | 1.7               | 1.7               |
| Penalties  |         | 0                 | 0                 | 0                 |
| <b>Blue Drop Score (2011)</b>                                |         | <b>33.50% (→)</b> | <b>33.50% (→)</b> | <b>33.58% (→)</b> |
| Blue Drop Score (2010)                                       |         | NA                | NA                | NA                |
| System Design Supply Capacity (MI/d)                         |         | 2.5               | 2.5               | 7.5               |
| System Operational Capacity                                  |         | NI                | NI                | NI                |
| Population Served by System                                  |         | 10 000            | 10 000            | 30 000            |
| Ave. Daily Consumption per Capita (l)                        |         | -                 | -                 | -                 |
| Microbiological Compliance(12 months)                        |         | 93.10%            | 83.33%            | 89.47%            |
| Chemical Compliance(12 months)                               |         | 95.45%            | 76.39%            | 97.50%            |

| Performance Area   | Systems | McGregor          | Robertson         |
|--|---------|-------------------|-------------------|
| Water Safety Planning Process & Incident Response Management |         | 9                 | 5                 |
| Process Control, Maintenance & Management Skills             |         | 25                | 3                 |
| Monitoring Programme   |         | 66                | 66                |
| Credibility of Sample Analyses                               |         | 60                | 62                |
| Submission of Results  |         | 100               | 100               |
| Drinking Water Quality Compliance                            |         | 65                | 20                |
| Performance Publication                                      |         | 0                 | 0                 |
| Asset Management   |         | 60                | 52                |
| Bonus Scores   |         | 1.7               | 0                 |
| Penalties  |         | 0                 | 0                 |
| <b>Blue Drop Score (2011)</b>                                |         | <b>48.50% (→)</b> | <b>29.48% (→)</b> |
| Blue Drop Score (2010)                                       |         | NA                | NA                |
| System Design Supply Capacity (MI/d)                         |         | 0.5               | 6.6               |
| System Operational Capacity                                  |         | NI                | NI                |
| Population Served by System                                  |         | 1 000             | 35 000            |
| Ave. Daily Consumption per Capita (l)                        |         | -                 | -                 |
| Microbiological Compliance(12 months)                        |         | 97.14%            | 87.50%            |
| Chemical Compliance(12 months)                               |         | 97.30%            | 88.75%            |

#### Regulatory Impression:

Evidently there is sufficient reason to believe that the Municipality is striving towards improvement, however the scores indicate that whatever efforts are deployed, is not adequate as yet. The inadequate preparation for the Blue Drop assessment further compromised the performance.

The below standard compliance levels recorded also raises concern. The development and implementation of a water safety planning process is paramount to ensure that all risks (especially bacteriological) are mitigated. Continuous disinfection should be sufficient to ensure the required drastic improvement.

However recognition must be given to the impressive approach to asset management. The inspectors were impressed with the completeness of the asset register and the planning for refurbishment. The municipality is encouraged to subject all treatment system to a process optimisation audit which is a crucial element for Blue Drop certification.

#### Findings

1. Speculation should be given to both chemical and microbiological quality of water supply of Bonnievale.
2. The classification and registration of treatment facilities and process controllers are neglected requirements. The municipality is found lacking in this regard.



|                           |                                     |
|---------------------------|-------------------------------------|
| Water Services Authority: | <b>Matzikama Local Municipality</b> |
| Water Services Providers: | <b>Matzikama Local Municipality</b> |

Municipal Blue Drop Score 2011: **32.98%**

| Performance Area   | Systems | Ebenhaezer         | Klawer             | Koekenaap          |
|--|---------|--------------------|--------------------|--------------------|
| Water Safety Planning Process & Incident Response Management |         | 23                 | 23                 | 23                 |
| Process Control, Maintenance & Management Skills             |         | 27                 | 31                 | 13                 |
| Monitoring Programme   |         | 45                 | 45                 | 45                 |
| Credibility of Sample Analyses                               |         | 100                | 100                | 100                |
| Submission of Results  |         | 20                 | 20                 | 50                 |
| Drinking Water Quality Compliance                            |         | 5                  | 78                 | 5                  |
| Performance Publication                                      |         | 100                | 100                | 100                |
| Asset Management   |         | 26                 | 20                 | 35                 |
| Bonus Scores   |         | 0                  | 0                  | 0                  |
| Penalties  |         | 2.1                | 2.1                | 1.8                |
| <b>Blue Drop Score (2011)</b>                                |         | <b>31.96% (↑)</b>  | <b>53.21% (↑)</b>  | <b>33.41% (→)</b>  |
| Blue Drop Score (2010)                                       |         | 30.88%             | 30.88%             | NA                 |
| System Design Supply Capacity (MI/d)                         |         | NI                 | NI                 | NI                 |
| System Operational Capacity                                  |         | NI                 | NI                 | NI                 |
| Population Served by System                                  |         | 4 288              | 6 137              | 1 347              |
| Ave. Daily Consumption per Capita (l)                        |         | -                  | -                  | -                  |
| Microbiological Compliance(12 months)                        |         | 67.86% (4 months)  | 100.00% (4 months) | 33.33% (3 months)  |
| Chemical Compliance(12 months)                               |         | 99.65% (10 months) | 99.65% (10 months) | 95.12% (11 months) |
| Performance Area   | Systems | Lutzville          | Lutzville West     | Vredendal          |
| Water Safety Planning Process & Incident Response Management |         | 51                 | 29                 | 23                 |
| Process Control, Maintenance & Management Skills             |         | 14                 | 13                 | 13                 |
| Monitoring Programme   |         | 45                 | 45                 | 34                 |
| Credibility of Sample Analyses                               |         | 100                | 100                | 100                |
| Submission of Results  |         | 20                 | 0                  | 20                 |
| Drinking Water Quality Compliance                            |         | 5                  | 5                  | 5                  |
| Performance Publication                                      |         | 100                | 100                | 100                |
| Asset Management   |         | 20                 | 20                 | 20                 |
| Bonus Scores   |         | 0                  | 0                  | 0                  |
| Penalties  |         | 2.1                | 2.1                | 2.1                |
| <b>Blue Drop Score (2011)</b>                                |         | <b>33.96% (↑)</b>  | <b>29.56% (↑)</b>  | <b>28.54% (↑)</b>  |
| Blue Drop Score (2010)                                       |         | 30.38%             | N/A                | 28.08%             |
| System Design Supply Capacity (MI/d)                         |         | NI                 | NI                 | 2                  |
| System Operational Capacity                                  |         | NI                 | NI                 | 75%                |
| Population Served by System                                  |         | 5 856              | 1 200              | 23 000             |
| Ave. Daily Consumption per Capita (l)                        |         | -                  | -                  | 65                 |
| Microbiological Compliance(12 months)                        |         | 83.33% (3 months)  | 85.71% (7 months)  | 81.82% (4 months)  |
| Chemical Compliance(12 months)                               |         | 93.75% (10 months) | 100.00% (8 months) | 99.56% (10 months) |

#### Regulatory Impression:

The Blue Drop Inspectors expressed concern about the management of drinking water quality within the water supply system of Matzikama Local Municipality. In spite of a valiant effort of the official representing the authority, he was always going to be challenged to ensure a good Blue Drop performance since limited access to resources and assistance was clearly exposed. Additional capacity is urgently required.



Extremely poor water quality compliance records in Ebenhaezer and Koekenaap raise the concern that the immuno-compromised in these two communities will always be at risk. Process optimisation is therefore an urgent requirement. Until such time the Department cannot have any confidence in the quality of tap water in these two towns. This dire situation might be exaggerated due to limited monitoring that took place.

#### Findings

1. The fact that no design capacities are documented compromises the municipality's ability to implement effective asset management and relevant planning.
2. It is preferable that additional process controlling staff is sourced and that currently employed is invested in (training) to ensure that process enhancements can timely be implemented in order to maintain a supply of water of acceptable quality.

|                           |                                      |
|---------------------------|--------------------------------------|
| Water Services Authority: | <b>Mossel Bay Local Municipality</b> |
| Water Services Providers: | <b>Mossel Bay Local Municipality</b> |

Municipal Blue Drop Score 2011: **95.27%**

| Performance Area   | Systems | Mossel Bay  | Friemersheim      | Ruiterbos   |
|--|---------|---|-------------------|---|
|  |         |  |                   |  |
| Water Safety Planning Process & Incident Response Management |         | 9   | 94                | 94  |
| Process Control, Maintenance & Management Skills             |         | 94  | 90                | 96  |
| Monitoring Programme   |         | 93  | 100               | 100   |
| Credibility of Sample Analyses                               |         | 100   | 100               | 100   |
| Submission of Results  |         | 100   | 100               | 100   |
| Drinking Water Quality Compliance                            |         | 93  | 70                | 100   |
| Performance Publication                                      |         | 100   | 100               | 80  |
| Asset Management   |         | 85  | 99                | 85  |
| Bonus Scores   |         | 2   | 3.4               | 0.5   |
| Penalties  |         | 0.1   | 0.3               | 0   |
| <b>Blue Drop Score (2011)</b>                                |         | <b>95.33% (↑)</b>   | <b>92.21% (↑)</b> | <b>95.00% (↑)</b>   |
| Blue Drop Score (2010)                                       |         | 86.09%  | 80.25%            | 69.25%  |
| System Design Supply Capacity (MI/d)                         |         | 55.5 (combined)   | 0.86              | 0.115   |
| System Operational Capacity                                  |         | 31%   | 93%               | 100%  |
| Population Served by System                                  |         | 98 000  | 1 200             | 300   |
| Ave. Daily Consumption per Capita (l)                        |         | 175   | >500              | 383   |
| Microbiological Compliance(12 months)                        |         | 99.01%  | 100.00%           | 100.00%   |
| Chemical Compliance(12 months)                               |         | 100.00%   | 87.50%            | 100.00%   |

| Performance Area   | Systems | Hebertsdale       | Lodewykstenk(Buisplaas) |
|--|---------|-------------------|-------------------------|
| Water Safety Planning Process & Incident Response Management |         | 94                | 94                      |
| Process Control, Maintenance & Management Skills             |         | 94                | 86                      |
| Monitoring Programme   |         | 100               | 58                      |
| Credibility of Sample Analyses                               |         | 100               | 100                     |
| Submission of Results  |         | 100               | 100                     |
| Drinking Water Quality Compliance                            |         | 100               | 100                     |
| Performance Publication                                      |         | 80                | 80                      |
| Asset Management   |         | 64                | 90                      |
| Bonus Scores   |         | 0.8               | 0.9                     |
| Penalties  |         | 0                 | 0                       |
| <b>Blue Drop Score (2011)</b>                                |         | <b>91.90% (↑)</b> | <b>90.83% (↑)</b>       |
| Blue Drop Score (2010)                                       |         | 56.44%            | 44.94%                  |
| System Design Supply Capacity (MI/d)                         |         | 1.1664 (yield)    | 0.12 (yield)            |
| System Operational Capacity                                  |         | -                 | 50%                     |
| Population Served by System                                  |         | 800               | 155                     |
| Ave. Daily Consumption per Capita (l)                        |         | -                 | 387                     |
| Microbiological Compliance(12 months)                        |         | 100.00%           | No data                 |
| Chemical Compliance(12 months)                               |         | 100.00%           | No data                 |

#### Regulatory Impression:

Mossel Bay Local Municipality is certainly one of the Blue Drop success stories. A water services authority that was inspired by this incentive-based regulation approach to implement stringent criteria with the commendable dedication required. The Department salutes all the officials, managers and decision makers that contributed to this remarkable enhancement in drinking water quality management. They certainly deserve the Blue Drop status for Mossel Bay and Ruiterbos.

This municipality was seriously challenged by water shortages but this did not prevent them from continuing ensuring that the water complies with the South African National Standard. This is a remarkable feat. The introduction of desalination technology as well as ground water augmentation eased the demand constraints but also introduced a new dimension for quality management.

The Kêh Brak and Sandhoogte water treatment plants were subjected to a verification audit and both impressed with efficient functionality. There would be a few issues to be noted though as mentioned below.

#### Findings

1. The high-end technology (advanced) created the limitation of visual checking off or dosing and flushing making efficiency. This is a risk for which a control measure is to be developed.
2. Different to expectations, the Operation and Maintenance Manual was not on-site. It is expected that job descriptions for plant operations be informed by the O&M manual to ensure that plant technology is operated and maintained as per the manual.
3. The third Blue Drop certification for Friemersheim evaded this coveted status due to low chemical compliance. Process optimisation to address the Ammonia issue is urgently required.
4. The Water Safety Planning process is to be revised to ensure that risk ratings are amended. It cannot be acceptable that all risks are categorised as low priority.

Municipal Blue Drop Score 2011: **36.88%**

| Performance Area   | Systems | Dysselsdorp           | Oudtshoorn         | De Rust           |
|--|---------|-----------------------|--------------------|-------------------|
| Water Safety Planning Process & Incident Response Management |         | 26                    | 61                 | 62                |
| Process Control, Maintenance & Management Skills             |         | 15                    | 13                 | 3                 |
| Monitoring Programme   |         | 26                    | 27                 | 18                |
| Credibility of Sample Analyses                               |         | 100                   | 100                | 100               |
| Submission of Results  |         | 0                     | 100                | 0                 |
| Drinking Water Quality Compliance                            |         | 45                    | 45                 | 10                |
| Performance Publication                                      |         | 0                     | 10                 | 10                |
| Asset Management   |         | 0                     | 0                  | 0                 |
| Bonus Scores   |         | 0                     | 0                  | 0                 |
| Penalties  |         | 1.8                   | 1.8                | 1.5               |
| <b>Blue Drop Score (2011)</b>                                |         | <b>26.56% (-&gt;)</b> | <b>37.61% (↓)</b>  | <b>20.24% (↓)</b> |
| Blue Drop Score (2010)                                       |         | NA                    | 44.13%             | 45.38%            |
| System Design Supply Capacity (MI/d)                         |         | 10.5                  | 30                 | 0.4               |
| System Operational Capacity                                  |         | NI                    | 57%                | 100%              |
| Population Served by System                                  |         | 15 000                | 97 403             | 2 500             |
| Ave. Daily Consumption per Capita (l)                        |         | -                     | 176                | 160               |
| Microbiological Compliance(12 months)                        |         | 100.00% (2 months)    | 86.96%             | 84.62% (6 months) |
| Chemical Compliance(12 months)                               |         | No data               | 100.00% (3 months) | No data           |

#### Regulatory Impression:

As host of the K le n Karoo Nat ional Arts Fest ival wh ich draws b g crowds of peop le t wou ld be expected that the m unic pa lity wou ld be m oev g b nt towards dr nk ng water qua lity m aag n et n ts quest to protect public hea th. Unfortunately an overa ll dec line was recorded since the last Blue Drop assessment et.

The Inspectors Panel noted the follow ing: “ The BDS was poorly populated for the virtual assessment. The

Municipality was well represented at the Confirmation Assessment, but one of the representatives had a hostile attitude and in some cases was reluctant to divulge information. The other representatives were accommodating and attempted to answer all questions posed. Unfortunately we did not receive all the information we were promised at the Confirmation Assessment and so the Blue Drop scores have remained fairly low.”

#### Findings

1. The poor m trob b g ta t n p nce has becom a trend that requires drast c measures to ensure that the hea th of all es dents and v s tors are protected. D s nfect bn opt m sat bn s to be done as a pr tr ty.
2. The m unic pa lity s encouraged to deve bp a portf o l of ev dence dur ng the year to ensure that a ll nform a bn s avai b le for assessment et. This hortcon ng com p on sed the Blue Drop perform ance th s as we ll

Municipal Blue Drop Score 2011: **90.56%**

| Performance Area   | Systems | Greater Hermanus | Buffelsrivier    | Kleinmond         | Stanford Oog          |
|--|---------|------------------|------------------|-------------------|-----------------------|
| Water Safety Planning Process & Incident Response Management |         | 88               | 90               | 90                | 89                    |
| Process Control, Maintenance & Management Skills             |         | 80               | 70               | 80                | 90                    |
| Monitoring Programme   |         | 96               | 93               | 93                | 69                    |
| Credibility of Sample Analyses                               |         | 100              | 100              | 100               | 100                   |
| Submission of Results  |         | 100              | 100              | 100               | 100                   |
| Drinking Water Quality Compliance                            |         | 70               | 100              | 85                | 100                   |
| Performance Publication                                      |         | 100              | 100              | 100               | 100                   |
| Asset Management   |         | 67               | 88               | 93                | 93                    |
| Bonus Scores   |         | 5.5              | 2.1              | 3.0               | 2.1                   |
| Penalties  |         | 0.3              | 0                | 0.2               | 0                     |
| <b>Blue Drop Score (2011)</b>                                |         | <b>87.23%(↑)</b> | <b>95.07%(↑)</b> | <b>93.09% (↑)</b> | <b>95.15% (-&gt;)</b> |
| Blue Drop Score (2010)                                       |         | 75.31%           | 63.83%           | 60.06%            | NA                    |
| System Design Supply Capacity (MI/d)                         |         | 24               | 5.5              | 5.8               | 1.3                   |
| System Operational Capacity                                  |         | 54%              | 58%              | 43%               | 88%                   |
| Population Served by System                                  |         | 42 800           | 3 000            | 9 800             | 5 300                 |
| Ave. Daily Consumption per Capita (l)                        |         | 302              | >500             | 254               | 215                   |
| Microbiological Compliance(12 months)                        |         | 100.00%          | 100.00%          | 100.00%           | 100.00%               |
| Chemical Compliance(12 months)                               |         | 84.03%           | 96.91%           | 91.80%            | 100.00%               |

| Performance Area   | Systems | Greater Gans Bay  | Buffeljagsbaai        | Baardskeerdersbos     | Pearly Beach          |
|--|---------|-------------------|-----------------------|-----------------------|-----------------------|
| Water Safety Planning Process & Incident Response Management |         | 90                | 88                    | 90                    | 90                    |
| Process Control, Maintenance & Management Skills             |         | 89                | 90                    | 89                    | 90                    |
| Monitoring Programme   |         | 85                | 70                    | 70                    | 100                   |
| Credibility of Sample Analyses                               |         | 100               | 100                   | 100                   | 100                   |
| Submission of Results  |         | 100               | 100                   | 100                   | 85                    |
| Drinking Water Quality Compliance                            |         | 100               | 20                    | 100                   | 100                   |
| Performance Publication                                      |         | 100               | 100                   | 100                   | 100                   |
| Asset Management   |         | 81                | 85                    | 78                    | 93                    |
| Bonus Scores   |         | 2.1               | 7.5                   | 2.7                   | 2.4                   |
| Penalties  |         | 0                 | 0                     | 0                     | 0.2                   |
| <b>Blue Drop Score (2011)</b>                                |         | <b>95.10% (↑)</b> | <b>75.37% (-&gt;)</b> | <b>93.68% (-&gt;)</b> | <b>94.31% (-&gt;)</b> |
| Blue Drop Score (2010)                                       |         | 63.81%            | NA                    | NA                    | NA                    |
| System Design Supply Capacity (MI/d)                         |         | 6.5               | 0.08                  | 0.15                  | 1.5                   |
| System Operational Capacity                                  |         | 62%               | 100%                  | 17%                   | 24%                   |
| Population Served by System                                  |         | 15 900            | 290                   | 230                   | 900                   |
| Ave. Daily Consumption per Capita (l)                        |         | 253               | 275                   | 110                   | 400                   |
| Microbiological Compliance(12 months)                        |         | 99.04%            | 93.33%                | 100.00%               | 100.00%               |
| Chemical Compliance(12 months)                               |         | 100.00%           | 100.00%               | 100.00%               | 100.00%               |

### Regulatory Impression:

The improvement of Overstrand Local Municipality's Blue Drop performance is most remarkable, since obtaining the recognition in terms of certification for 3 system stakes commendable commitment. This dedication evidently goes beyond the objective of regulatory recognition for excellent drinking water quality management, but has been adopted as the norm for business henceforth. The Department wishes to applaud this approach.

There however remains room for improvement. It is required that attention is given to treatment optimisation in Greater Hemarus and Kleinmond to ensure that the chemical treatment trend improves towards the national standard expectation.

The technical verification (Preekstoe) revealed the following findings:

1. A good logbook system is being implemented but unfortunately selective recordings are made. It was found that equipment failure and other events were not captured in this book. The same goes for the expensive in-line monitoring devices of which not all readings are captured. Also no recordings on regular operations, such as desludging which is required to ensure effective treatment.
2. The efficacy of the sand filtration is questioned since Back-up blowers not being in working order and filter media not being up to standard either.

|                           |                                  |
|---------------------------|----------------------------------|
| Water Services Authority: | Prince Albert Local Municipality |
| Water Services Providers: | Prince Albert Local Municipality |

Municipal Blue Drop Score 2011: **70.72%**

| Performance Area   | Systems | Klaarstroom         | Leeugamka          | Prince Albert      |
|--|---------|---------------------|--------------------|--------------------|
| Water Safety Planning Process & Incident Response Management |         | 88                  | 80                 | 88                 |
| Process Control, Maintenance & Management Skills             |         | 69                  | 35                 | 75                 |
| Monitoring Programme   |         | 81                  | 81                 | 81                 |
| Credibility of Sample Analyses                               |         | 66                  | 67                 | 65                 |
| Submission of Results  |         | 100                 | 100                | 100                |
| Drinking Water Quality Compliance                            |         | 20                  | 65                 | 65                 |
| Performance Publication                                      |         | 75                  | 75                 | 75                 |
| Asset Management   |         | 32                  | 32                 | 32                 |
| Bonus Scores   |         | 6.1                 | 4.7                | 3.9                |
| Penalties  |         | 0                   | 0.2                | 0.1                |
| <b>Blue Drop Score (2011)</b>                                |         | <b>60.86%(↓)</b>    | <b>69.65%(↑)</b>   | <b>73.00% (↑)</b>  |
| Blue Drop Score (2010)                                       |         | 62.75%              | 55.25%             | 47.00%             |
| System Design Supply Capacity (ML/d)                         |         | NI                  | 0.5                | 2.5                |
| System Operational Capacity                                  |         | NI                  | NI                 | NI                 |
| Population Served by System                                  |         | 3 000               | 3 000              | 9 000              |
| Ave. Daily Consumption per Capita (l)                        |         | -                   | -                  | -                  |
| Microbiological Compliance(12 months)                        |         | 88.46% (11 months)  | 96.15% (11 months) | 96.46% (11 months) |
| Chemical Compliance(12 months)                               |         | 100.00% (11 months) | 93.06% (11 months) | 100.00% (4 months) |

### Regulatory Impression:

The performance in improvement of Prince Albert Local Municipality is remarkable, even more so when considering the fact that this is a small municipality with limited resources and economic investment. The Department salutes the dedication of the officials responsible for the treatment and management of drinking water.

There remains space for improvement according to the following findings:

### Findings

1. The microbiological treatment of the Klaarstroom system is well below the expected standard. The municipality is required to improve disinfection.
2. The water safety planning process still requires a full SANS 241 to inform on all the possible risks, which needs to be included as part of the monitoring programme.
3. Asset management must be improved compliance by ensuring that all required information necessary for planning and management are sourced and used to ensure effective use of infrastructure.

Municipal Blue Drop Score 2011: **87.69%**

| Performance Area   | Systems | Saldanha Bay <sup>a</sup>   |
|--|---------|-----------------------------|
| Water Safety Planning Process & Incident Response Management |         | <b>74</b>                   |
| Process Control, Maintenance & Management Skills             |         | <b>95</b>                   |
| Monitoring Programme   |         | <b>89</b>                   |
| Credibility of Sample Analyses                               |         | <b>80</b>                   |
| Submission of Results  |         | <b>100</b>                  |
| Drinking Water Quality Compliance                            |         | <b>80</b>                   |
| Performance Publication                                      |         | <b>75</b>                   |
| Asset Management   |         | <b>88</b>                   |
| Bonus Scores   |         | 4.4                         |
| Penalties  |         | 0                           |
| <b>Blue Drop Score (2011)</b>                                |         | <b>87.69% (↑)</b>           |
| Blue Drop Score (2010)                                       |         | 80.84%                      |
| System Design Supply Capacity (MI/d)                         |         | 72                          |
| System Operational Capacity                                  |         | 72%                         |
| Population Served by System                                  |         | <b>83 323</b>               |
| Ave. Daily Consumption per Capita (l)                        |         | >500                        |
| Microbiological Compliance(12 months)                        |         | <b>93.75%; WSP: 98.36%</b>  |
| Chemical Compliance(12 months)                               |         | <b>100.00%; WSP: 98.31%</b> |



#### Regulatory Impression:

Saldanha Bay Local Municipality together with great support of the West Coast District Municipality is performing rather well in complying with the stringent criteria set by this regulation programme. With slight intensification of current process, the coveted Blue Drop status is imminent.


#### Findings

- The Microbiological performance in the reticulation system requires further improvement. The Local Municipality is required to do a proper risk assessment (as per water safety plan requirements), and to implement control measures that will ensure improvement in quality. The comprehensive monitoring programme is found to be impressive.

Municipal Blue Drop Score 2011: **95.74%**

| Performance Area   | Systems | Stellenbosch  | Franschoek               | Blackheath <sup>a</sup>   |
|--|---------|---|--------------------------|---|
|  |         |  |                          |  |
| Water Safety Planning Process & Incident Response Management |         | <b>100</b>  | <b>100</b>               | <b>92</b>   |
| Process Control, Maintenance & Management Skills             |         | <b>70</b>   | <b>70</b>                | <b>90</b>   |
| Monitoring Programme   |         | <b>100</b>  | <b>100</b>               | <b>100</b>  |
| Credibility of Sample Analyses                               |         | <b>100</b>  | <b>100</b>               | <b>100</b>  |
| Submission of Results  |         | <b>100</b>  | <b>100</b>               | <b>100</b>  |
| Drinking Water Quality Compliance                            |         | <b>100</b>  | <b>0</b>                 | <b>98</b>   |
| Performance Publication                                      |         | <b>100</b>  | <b>100</b>               | <b>100</b>  |
| Asset Management   |         | <b>93</b>   | <b>82</b>                | <b>85</b>   |
| Bonus Scores   |         | 1.2   | 10.8                     | 1.5   |
| Penalties  |         | 0   | 0.2                      | 0   |
| <b>Blue Drop Score (2011)</b>                                |         | <b>97.11% (↑)</b>   | <b>75.02% (↓)</b>        | <b>96.34% (↑)</b>   |
| Blue Drop Score (2010)                                       |         | 95.02%  | 94.11%                   | NA  |
| System Design Supply Capacity (MI/d)                         |         | 38 (combined)   | 2                        | 430   |
| System Operational Capacity                                  |         | 71%   | 100%                     | 44%   |
| Population Served by System                                  |         | <b>85 000</b>   | <b>12 000</b>            | <b>5 000</b>  |
| Ave. Daily Consumption per Capita (l)                        |         | 317   | 166                      | >500  |
| Microbiological Compliance(12 months)                        |         | <b>97.79%</b>   | <b>86.57%</b>            | <b>100.00%</b>  |
| Chemical Compliance(12 months)                               |         | <b>95.45%</b>   | <b>84.21% (4 months)</b> | <b>99.48%</b>   |

| Performance Area   | Systems | Faure <sup>a</sup>  | Wemmershoek <sup>a</sup> |
|--|---------|---|--------------------------|
|  |         |  |                          |
| Water Safety Planning Process & Incident Response Management |         | <b>100</b>  | <b>95</b>                |
| Process Control, Maintenance & Management Skills             |         | <b>90</b>   | <b>94</b>                |
| Monitoring Programme   |         | <b>89</b>   | <b>78</b>                |
| Credibility of Sample Analyses                               |         | <b>100</b>  | <b>100</b>               |
| Submission of Results  |         | <b>100</b>  | <b>100</b>               |
| Drinking Water Quality Compliance                            |         | <b>100</b>  | <b>88</b>                |
| Performance Publication                                      |         | <b>100</b>  | <b>100</b>               |
| Asset Management   |         | <b>85</b>   | <b>88</b>                |
| Bonus Scores   |         | 1.2   | 2.4                      |
| Penalties  |         | 0   | 0                        |
| <b>Blue Drop Score (2011)</b>                                |         | <b>96.79% (↑)</b>   | <b>93.40% (↑)</b>        |
| Blue Drop Score (2010)                                       |         | NA  | NA                       |
| System Design Supply Capacity (MI/d)                         |         | 450   | 250                      |
| System Operational Capacity                                  |         | 51%   | 78%                      |
| Population Served by System                                  |         | <b>2 540</b>  | <b>70 000</b>            |
| Ave. Daily Consumption per Capita (l)                        |         | >500  | >500                     |
| Microbiological Compliance(12 months)                        |         | <b>97.66%</b>   | <b>96.18%</b>            |
| Chemical Compliance(12 months)                               |         | <b>100.00%</b>  | <b>99.48%</b>            |

### Regulatory Impression:

Stellenbosch together with the City of Cape Town (bulk provider in 3 systems), was found to manage drinking water quality in excellent fashion. This ensured the allocation of Blue Drop certification in 3 of the 5 water supply systems. The Department wish to congratulate these municipalities on this prestigious achievement.

The water quality compliance in Franschhoek is however sub-standard; records in place both chemical and microbiological compliance to be well out of range. It is required that this matter is prioritised for urgent improvement.

|                           |                              |
|---------------------------|------------------------------|
| Water Services Authority: | Swartland Local Municipality |
| Water Services Providers: | West Coast DM                |

Municipal Blue Drop Score 2011: **92.89%**

| Performance Area   | Systems | Malmesbury <sup>a</sup> | Moorreesburg / Koringberg <sup>a</sup> |
|--|---------|-------------------------|--|
| Water Safety Planning Process & Incident Response Management |         | 76                      | 64                                     |
| Process Control, Maintenance & Management Skills             |         | 89                      | 89                                     |
| Monitoring Programme   |         | 94                      | 94                                     |
| Credibility of Sample Analyses                               |         | 93                      | 93                                     |
| Submission of Results  |         | 100                     | 100                                    |
| Drinking Water Quality Compliance                            |         | 85                      | 93                                     |
| Performance Publication                                      |         | 100                     | 100                                    |
| Asset Management   |         | 100                     | 97                                     |
| Bonus Scores   |         | 3.1                     | 3.0                                    |
| Penalties  |         | 3.1                     | 1.2                                    |
| <b>Blue Drop Score (2011)</b>                                |         | <b>92.88% (↑)</b>       | <b>92.90% (↑)</b>                      |
| Blue Drop Score (2010)                                       |         | 71.94%                  | 71.94%                                 |
| System Design Supply Capacity (ML/d)                         |         | 72                      | 72                                     |
| System Operational Capacity                                  |         | 72%                     | 72%                                    |
| Population Served by System                                  |         | 23 650                  | 4 950                                  |
| Ave. Daily Consumption per Capita (l)                        |         | -                       | -                                      |
| Microbiological Compliance(12 months)                        |         | 100.00%; WSP: 97.78%    | 100.00% (11 months); WSP: 97.78%       |
| Chemical Compliance(12 months)                               |         | 98.21%                  | 97.21%                                 |

### Regulatory Impression:

A massive improvement was recorded since the last Blue Drop assessment; this can be accounted to the enhanced commitment of officials from both Swartland and West Coast municipalities. Both these systems are on verge of being certified with the coveted Blue Drop status. The Department wish to congratulate these municipalities with this excellent performance and would encourage them to proceed in the similar fashion.

Another commendable issue would be the approach to asset management. The Water Services Audit report together with a detailed asset register is presented since it contained a technical information as required by the Blue Drop requirements.

It however very unfortunate that the inspectors detected that at least one failure (result) was selectively omitted from being submitted onto the BDS. This prevented the Malmesburg system from an even better score under the WQ Compliance Requirement.

### Findings

1. The Swartland Local Municipality is encouraged to expand its monitoring of chemical determinands at critical control points within the reticulation system. Currently no chemical monitoring is recorded within the reticulation system. Those results reported stem from the West Coast District Municipality's monitoring programme.
2. The finding of data submission was discussed. It is reiterated that a compliance analyses results should be submitted to the Department.

Municipal Blue Drop Score 2011: **80.50%**

| Performance Area   | Systems | Swellendam        | Buffeljags-rivier | Suurbrak          | Barrydale         |
|--|---------|-------------------|-------------------|-------------------|-------------------|
| Water Safety Planning Process & Incident Response Management |         | 86                | 81                | 89                | 81                |
| Process Control, Maintenance & Management Skills             |         | 79                | 70                | 50                | 80                |
| Monitoring Programme   |         | 89                | 74                | 46                | 50                |
| Credibility of Sample Analyses                               |         | 100               | 100               | 100               | 100               |
| Submission of Results  |         | 100               | 100               | 100               | 100               |
| Drinking Water Quality Compliance                            |         | 90                | 20                | 0                 | 3                 |
| Performance Publication                                      |         | 100               | 100               | 100               | 80                |
| Asset Management   |         | 85                | 51                | 61                | 45                |
| Bonus Scores   |         | 1.4               | 0                 | 6.5               | 6.7               |
| Penalties  |         | 0.3               | 0.3               | 0.6               | 0.5               |
| <b>Blue Drop Score (2011)</b>                                |         | <b>90.94% (↑)</b> | <b>60.14% (↓)</b> | <b>58.48% (↓)</b> | <b>57.33% (↓)</b> |
| Blue Drop Score (2010)                                       |         | 67.00%            | 71.00%            | 60.55%            | 65.50%            |
| System Design Supply Capacity (MI/d)                         |         | 4.8               | 0.24              | 0.5               | 1.4               |
| System Operational Capacity                                  |         | 65%               | 58%               | 40%               | 64%               |
| Population Served by System                                  |         | 30 000            | 2 500             | 10 000            | 10 000            |
| Ave. Daily Consumption per Capita (l)                        |         | 104               | 56                | <50               | 90                |
| Microbiological Compliance(12 months)                        |         | 97.78%            | 93.33%            | 88.89% (8 months) | 91.67% (9 months) |
| Chemical Compliance(12 months)                               |         | 100% (11 months)  | 100% (10 months)  | 100.00%           | 100.00%           |

#### Regulatory Impression:

The municipality manages the Swellendam system with the required excellence but unfortunately its performance is not duplicated in the other 3 systems. Even though reasonably good scores were achieved, recorded microbiological compliance are not according to expectations.

The inspectors were very much impressed with an exceptional effort to get water safety planning process in place. The municipality is reminded that the continuation of their risk-based approach is paramount. The quality of drinking water supplied by the systems of Buffeljagsrivier, Suurbark and Barrydale will benefit from effective water safety planning implementation. Whilst impressive it is certainly not perfect as yet.

#### Findings

- The monitoring programme is yet to be improved according to the risk based water safety planning process. A full ISANS 241 is to be done during the season of highest risk (e.g. after first rains) to inform risk elements that should be included in the monitoring programme.
- The inspectors were not convinced that site-specific operations and maintenance manuals are in place at all of the treatment facilities. The municipality is to ensure that process controllers are conversant with the content of these manuals.

Municipal Blue Drop Score 2011: **75.41%**

| Performance Area   | Systems | Botrivier         | Genadendal (Voorstede) | Genadendal        |
|--|---------|-------------------|------------------------|-------------------|
| Water Safety Planning Process & Incident Response Management |         | 55                | 53                     | 53                |
| Process Control, Maintenance & Management Skills             |         | 73                | 35                     | 35                |
| Monitoring Programme   |         | 55                | 44                     | 44                |
| Credibility of Sample Analyses                               |         | 83                | 100                    | 82                |
| Submission of Results  |         | 100               | 100                    | 100               |
| Drinking Water Quality Compliance                            |         | 100               | 20                     | 100               |
| Performance Publication                                      |         | 80                | 80                     | 80                |
| Asset Management   |         | 23                | 35                     | 55                |
| Bonus Scores   |         | 4.7               | 7.7                    | 4.2               |
| Penalties  |         | 1.1               | 0.2                    | 0.2               |
| <b>Blue Drop Score (2011)</b>                                |         | <b>76.39% (↑)</b> | <b>52.31% (↑)</b>      | <b>75.33% (↑)</b> |
| Blue Drop Score (2010)                                       |         | 59.94%            | 30.94%                 | 35.94%            |
| System Design Supply Capacity (MI/d)                         |         | 1.6               | 0.4                    | 1.84              |
| System Operational Capacity                                  |         | 106%              | 50%                    | NI                |
| Population Served by System                                  |         | 4 952             | 2 105                  | 8 515             |
| Ave. Daily Consumption per Capita (l)                        |         | 343               | 95                     | 164               |
| Microbiological Compliance(12 months)                        |         | 100.00%           | 91.67%                 | 96.77%            |
| Chemical Compliance(12 months)                               |         | 100.00%           | 100.00%                | 100.00%           |

| Performance Area   | Systems | Grabouw           | Greyton           | Riversonderend <sup>a</sup> |
|--|---------|-------------------|-------------------|-----------------------------|
| Water Safety Planning Process & Incident Response Management |         | 53                | 53                | 53                          |
| Process Control, Maintenance & Management Skills             |         | 33                | 75                | 35                          |
| Monitoring Programme   |         | 66                | 55                | 51                          |
| Credibility of Sample Analyses                               |         | 80                | 66                | 81                          |
| Submission of Results  |         | 100               | 100               | 100                         |
| Drinking Water Quality Compliance                            |         | 70                | 100               | 70                          |
| Performance Publication                                      |         | 80                | 80                | 80                          |
| Asset Management   |         | 15                | 55                | 43                          |
| Bonus Scores   |         | 6.1               | 4.1               | 6.6                         |
| Penalties  |         | 1.1               | 0.9               | 1.1                         |
| <b>Blue Drop Score (2011)</b>                                |         | <b>64.10% (↑)</b> | <b>79.58% (↑)</b> | <b>67.52% (↑)</b>           |
| Blue Drop Score (2010)                                       |         | 51.94%            | 35.94%            | 55.44%                      |
| System Design Supply Capacity (MI/d)                         |         | 6                 | 2.9               | 2.4                         |
| System Operational Capacity                                  |         | 87%               | NI                | 142%                        |
| Population Served by System                                  |         | 56 244            | 1 926             | 5 144                       |
| Ave. Daily Consumption per Capita (l)                        |         | 92                | -                 | 276                         |
| Microbiological Compliance(12 months)                        |         | 100.00%           | 100.00%           | 100.00%                     |
| Chemical Compliance(12 months)                               |         | 73.40%            | 97.30%            | 89.53%                      |



| Performance Area   | Systems | Tesselaarsdal     | Villiersdorp      | Caledon <sup>a</sup><br>(Overberg) |
|--|---------|-------------------|-------------------|------------------------------------|
| Water Safety Planning Process & Incident Response Management |         | 53                | 53                | 63                                 |
| Process Control, Maintenance & Management Skills             |         | 73                | 38                | 98                                 |
| Monitoring Programme   |         | 44                | 51                | 93                                 |
| Credibility of Sample Analyses                               |         | 76                | 73                | 75                                 |
| Submission of Results  |         | 100               | 100               | 90                                 |
| Drinking Water Quality Compliance                            |         | 100               | 44                | 78                                 |
| Performance Publication                                      |         | 80                | 80                | 80                                 |
| Asset Management   |         | 35                | 35                | 97                                 |
| Bonus Scores   |         | 4.8               | 7.0               | 3.6                                |
| Penalties  |         | 0.9               | 1.1               | 1.1                                |
| <b>Blue Drop Score (2011)</b>                                |         | <b>76.36% (↑)</b> | <b>58.90% (↓)</b> | <b>88.62% (↑)</b>                  |
| Blue Drop Score (2010)                                       |         | 59.94%            | 66.69%            | 86.63%                             |
| System Design Supply Capacity (ML/d)                         |         | 0.12              | 2.9               | 9.5                                |
| System Operational Capacity                                  |         | 100%              | 100%              | 63%                                |
| Population Served by System                                  |         | 1 151             | 11 123            | 18 024                             |
| Ave. Daily Consumption per Capita (l)                        |         | 104               | 261               | 332                                |
| Microbiological Compliance(12 months)                        |         | 100.00%           | 94.44%            | 97.20%                             |
| Chemical Compliance(12 months)                               |         | 100.00%           | 100.00%           | 99.35%                             |

#### Regulatory Impression:

Overall the Blue Drop performance of Theewaterskloof Local Municipality improved significantly. The Department therefore wishes to salute this commendable dedication which makes enhancement of this kind possible.

However there remains room for considerable inroads to be made in the various areas of the stringent criteria set. This will only be possible if a concerted effort of both officials (in management and practitioners) and decision makers generate momentum towards the target of excellence. It is noted that the joint effort between Theewaterskloof and Overberg Water once again ensured for a reasonably good showing under the Caledon water supply system.

#### Findings

1. The water safety plan tabled at the assessment was found to be promising, aiming in the right direction, but with various elements still to be included or improved. The monitoring programme should be informed by the identified risks and critical control points identified through this process.
2. The naming of water supply system sare recommended to be revised to rather describe the area supplied with water instead of the water treatment plant descriptor. This is a mere recommendation.
3. The monitoring of free chlorine levels in a system is required.
4. The operations at the Grabouw treatment plant are far from desirable. The condition of the plant requires urgent attention and investment. It does not bode well that a facility treating drinking water to be in such a state.
5. A number of systems are operating at or over design capacity. This is an unsustainable situation that requires planning for significant capital investment to continuously secure the supply of safe drinking water.

|                           |                                  |
|---------------------------|----------------------------------|
| Water Services Authority: | West Coast District Municipality |
| Water Services Providers: | West Coast District Municipality |

Municipal Blue Drop Score 2011: **97.08%**

| Performance Area   | Systems | Algeria           | Bitterfontein     | Kliprand           |
|--|---------|-------------------|-------------------|--------------------|
| Water Safety Planning Process & Incident Response Management |         | 98                | 100               | 100                |
| Process Control, Maintenance & Management Skills             |         | 74                | 98                | 13                 |
| Monitoring Programme   |         | 0                 | 100               | 15                 |
| Credibility of Sample Analyses                               |         | 100               | 100               | 100                |
| Submission of Results  |         | 0                 | 100               | 0                  |
| Drinking Water Quality Compliance                            |         | 5                 | 100               | 63                 |
| Performance Publication                                      |         | 25                | 100               | 100                |
| Asset Management   |         | 48                | 70                | 40                 |
| Bonus Scores   |         | 0                 | 0.3               | 3.2                |
| Penalties  |         | 0.3               | 0                 | 0.5                |
| <b>Blue Drop Score (2011)</b>                                |         | <b>38.15% (→)</b> | <b>95.61% (↑)</b> | <b>60.69% (↑)</b>  |
| Blue Drop Score (2010)                                       |         | NA                | 60.43%            | NA                 |
| System Design Supply Capacity (ML/d)                         |         | 0.12              | 0.6 (yield)       | 0.12 (yield)       |
| System Operational Capacity                                  |         | NI                | 37%               | NI                 |
| Population Served by System                                  |         | 100               | 7 199             | 490                |
| Ave. Daily Consumption per Capita (l)                        |         | -                 | 308               | -                  |
| Microbiological Compliance(12 months)                        |         | 41.67% (3 months) | 97.69%            | 100.00% (3 months) |
| Chemical Compliance(12 months)                               |         | 100.00% (1 month) | 95.00%            | 93.33% (1 month)   |

| Performance Area   | Systems | Swartland<br>(Bulk System) | Withoogte<br>(Bulk System) |
|--|---------|----------------------------|----------------------------|
| Water Safety Planning Process & Incident Response Management |         | 93                         | 100                        |
| Process Control, Maintenance & Management Skills             |         | 95                         | 98                         |
| Monitoring Programme   |         | 100                        | 100                        |
| Credibility of Sample Analyses                               |         | 100                        | 100                        |
| Submission of Results  |         | 100                        | 100                        |
| Drinking Water Quality Compliance                            |         | 96                         | 88                         |
| Performance Publication                                      |         | 100                        | 100                        |
| Asset Management   |         | 100                        | 100                        |
| Bonus Scores   |         | 0.4                        | 0.8                        |
| Penalties  |         | 0                          | 0                          |
| <b>Blue Drop Score (2011)</b>                                |         | <b>97.42% (↑)</b>          | <b>96.96% (↑)</b>          |
| Blue Drop Score (2010)                                       |         | NA                         | NA                         |
| System Design Supply Capacity (ML/d)                         |         | 29.1                       | 72                         |
| System Operational Capacity                                  |         | 60%                        | 72%                        |
| Population Served by System                                  |         | 77 524                     | 124 000                    |
| Ave. Daily Consumption per Capita (l)                        |         | 225                        | 418                        |
| Microbiological Compliance(12 months)                        |         | 97.78%                     | 98.36%                     |
| Chemical Compliance(12 months)                               |         | 98.21%                     | 98.31%                     |

### Regulatory Impression:




West Coast District Municipality seriously impressed with its dedicated performance as a Bulk Water Services Provider. This remarkable performance translated into a number of systems being certified with Blue Drop status. The Department wishes to salute the attitude that served as catalyst for this significant improvement since the last assessment.

The regaining of Blue Drop status for Bitterfontein (where West Coast DM is both authority and provider) serves as further evidence of the discussed level of dedication. The inspectors were impressed by the receptiveness of the officials to recommendations made by the regulator. E.g. in Bitterfontein, the inspectors were swiftly made on the Blue Drop System (BDS) to ensure adherence to regulatory expectations.



On the municipality's request the Department partook in the endeavour to improve the compliance situation in Agers. The Municipality's intervention included community consultation which has been conducted in commendable fashion. The introduction of disinfection will surely ensure massive improvement within the next reporting cycle. The same level of commitment is expected for the water supply of Kiprand.

|                           |                               |
|---------------------------|-------------------------------|
| Water Services Authority: | Witzenberg Local Municipality |
| Water Services Providers: | Witzenberg Local Municipality |

Municipal Blue Drop Score 2011: **97.56%**

| Performance Area   | Systems | Ceres   | Wolsle  | Tulbagh   |
|--|---------|---|---|---|
|  |         |  |  |  |
| Water Safety Planning Process & Incident Response Management |         | 91  | 100   | 100   |
| Process Control, Maintenance & Management Skills             |         | 100   | 80  | 80  |
| Monitoring Programme   |         | 100   | 100   | 100   |
| Credibility of Sample Analyses                               |         | 98  | 98  | 99  |
| Submission of Results  |         | 100   | 100   | 100   |
| Drinking Water Quality Compliance                            |         | 100   | 100   | 90  |
| Performance Publication                                      |         | 100   | 100   | 100   |
| Asset Management   |         | 100   | 82  | 100   |
| Bonus Scores   |         | 0.1   | 1.4   | 0.9   |
| Penalties  |         | 1.8   | 1.8   | 1.9   |
| <b>Blue Drop Score (2011)</b>                                |         | <b>98.75%(↑)</b>  | <b>96.55%(↑)</b>  | <b>95.68%(↑)</b>  |
| Blue Drop Score (2010)                                       |         | 96.15%  | 89.75%  | 92.00%  |
| System Design Supply Capacity (ML/d)                         |         | 10.5  | 7   | 2.76  |
| System Operational Capacity                                  |         | 99%   | 34%   | 64%   |
| Population Served by System                                  |         | 41 339  | 10 132  | 64  |
| Ave. Daily Consumption per Capita (l)                        |         | 251   | 235   | -   |
| Microbiological Compliance(12 months)                        |         | 100.00%   | 100.00%   | 100.00%   |
| Chemical Compliance(12 months)                               |         | 100.00%   | 100.00%   | 100.00%   |

| Performance Area   | Systems | Op Die Berg   | Prince Alfred Hamlet  |
|--|---------|---|---|
|  |         |  |  |
| Water Safety Planning Process & Incident Response Management |         | 100   | 100   |
| Process Control, Maintenance & Management Skills             |         | 90  | 80  |
| Monitoring Programme   |         | 100   | 100   |
| Credibility of Sample Analyses                               |         | 97  | 97  |
| Submission of Results  |         | 100   | 100   |
| Drinking Water Quality Compliance                            |         | 80  | 100   |
| Performance Publication                                      |         | 100   | 100   |
| Asset Management   |         | 100   | 100   |
| Bonus Scores   |         | 2.1   | 0.3   |
| Penalties  |         | 2.1   | 1.9   |
| <b>Blue Drop Score (2011)</b>                                |         | <b>95.00%(↑)</b>  | <b>98.19%(↑)</b>  |
| Blue Drop Score (2010)                                       |         | 93.50%  | 95.00%  |
| System Design Supply Capacity (ML/d)                         |         | 0.61  | 2   |
| System Operational Capacity                                  |         | 52%   | 90%   |
| Population Served by System                                  |         | 3 122   | 6 457   |
| Ave. Daily Consumption per Capita (l)                        |         | 102   | 279   |
| Microbiological Compliance(12 months)                        |         | 96.30%  | 100.00%   |
| Chemical Compliance(12 months)                               |         | 100.00%   | 100.00%   |

#### Regulatory Impression:

Once again an impressive performance by Witzenberg Local Municipality. The Department wish to congratulate this water services authority (WSA) which has proven that the size of a municipality is not to be the determining factor of the success within the Blue Drop Certification programme but rather the dedication to diligently adhere to the stringent criteria set.

In the words of the Lead Inspector: "The WSA has shown high level of commitment throughout the whole process. The officials have put more effort in the preparation for the 2010/11 assessment; this was proven based on the availability and the quality of the information presented during the on-site assessment and the information on the Blue Drop System. The level of commitment from the management side contributed as well. This is one of the municipalities which can be used as a case study (lesson learning), it could benefit other WSAs."

This performance justifies a place in the National Top 10 Blue Drop performances.