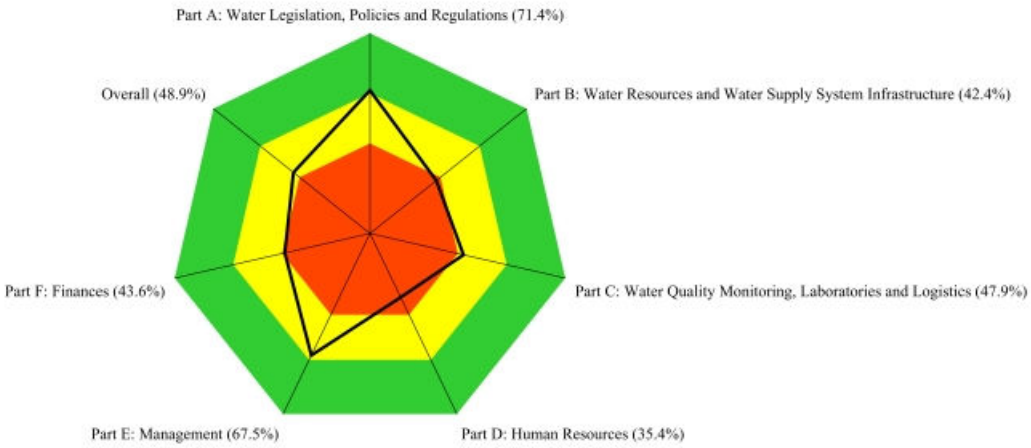
Gap Questionnaire Report

Ndlambe Municipality Report

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

Answered on 28 Jan 2009 18:38



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

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

- Part A: Water Legislation, Policies and Regulations
- Part B: Water Resources and Water Supply System Infrastructure
- Part C: Water Quality Monitoring, Laboratories and Logistics
- Part D: Human Resources
- Part E: Management
- Part F: Finances

Part A: Water Legislation, Policies and Regulations

1. Do you have a copy of the National Water Act?
Yes

2. Do you have a copy of the Water Services Act?
Yes

3. Do you have a copy of Compulsory National Standards for Potable Water ?
Yes

4. Do you have a copy of National DWQM Framework?
Yes

5. Do you have a copy of SANS 241 Drinking Water Specification?
Yes

6. Have you read, understood and implemented the National Water Act?
Yes

7. Have you read, understood and implemented the Water Services Act?
Yes

8. Have you read, understood and implemented the Compulsory National Standards for Potable Water?
Yes

9. Have you read, understood and implemented the National DWQM Framework?
No

10. Have you read, understood and implemented the SANS 241 Drinking Water Specification?
Yes

11. Are there any municipal directives, by-laws, permits etc regarding drinking water quality?
Yes

12. Have these municipal directives, by-laws, permits etc been implemented?
No

13. Do you think you are complying to your legal responsibilities regarding drinking water?
Mostly

14. Do all wastewater treatment facilities have an appropriate licence/permit?
No

15. If wastewater treatment works do not have a licence/permit, have you applied to DWAF?
Yes

16. Do all wastewater treatment works comply to licence/permit conditions?
No

17. If not, please state the name of the wastewater treatment works and condition/s for which it does not comply (e.g. quality standards, volume, location of discharge, etc)
Effluent poor quality and excessive volumes treated

18. If you have any points of importance related to Part A, please explain below:
By-laws being drafted

Part B: Water Resources and Water Supply System Infrastructure

1. What is your total water abstraction (please specify units)?
8ML/day

2. What proportion of water sources utilised is groundwater (boreholes) (please specify percentage)?
35%

3. What proportion of water sources utilised is surface water (rivers, dams) (please specify percentage)?
55%

4. What proportion of water sources utilised is other (seawater, rain harvesting) (please specify percentage)?
10%

5. Are groundwater (borehole) sources protected?
Yes

6. Are surface water (rivers, dams) sources protected?
Yes

7. Are other water sources (seawater, rain harvesting) protected?
Yes

8. Are there communities living near the groundwater (boreholes) sources?
Yes

9. Are there communities living near the surface water (rivers, dams) sources?
No

10. Are there communities living near the other water (seawater, rain harvesting) sources?
Yes

11. Are there any industrial effluent discharges that may impact on groundwater (boreholes) quality?
No

12. Are there any industrial effluent discharges that may impact on surface water (rivers, dams) quality?
Yes

13. Are there any industrial effluent discharges that may impact on other water (seawater, rainwater harsting) quality?
Yes

14. Are there any domestic effluent discharges that may impact on the groundwater (boreholes) quality?
Yes

15. Are there any domestic effluent discharges that may impact on the surface water (rivers, dams) quality?
No

16. Are there any domestic effluent discharges that may impact on the other water sources (seawater, rainwater harvesting)?
No

17. Do you have sufficient water resources (i.e. no shortages)?
No shortage (i.e. presently have sufficient water available)

18. If you have water shortages, what is the estimated shortfall (Please specify units)?
5ML/day

19. Would you say your water resources are of good quality?
No

20. What is the total number of rural households supplied with water (as per WSDP definition)?
+- 100

21. What is the total number of formal town/city households supplied with water (as per WSDP definition)?
19088

22. How much water do you supply to consumers (please specify units)?
8ML/day

23. What percentage of the water is supplied by Water Services Authorities (WSAs)?
85%

24. What percentage of the water is supplied by Water Services Providers (WSPs) (please specify name of WSP)?
15% (provided by Albany Coast Water Board)

25. What percentage of water is supplied through formal distribution schemes (conventional infrastrucure, bulk supply, etc?)
100%

26. What percentage of the water is supplied through small standalone rural schemes (spring, borehole, etc)(e.g. <2 ML/day)?
0%

27. Is the water in your potable distribution systems treated in any way?
Yes

28. What percentage of water is not treated in the formal distribution schemes?
None (i.e. all treated)

29. What percentage of water is treated by home treatment in the formal distribution schemes?
0

30. What percentage of water is treated through basic disinfection in the formal distribution schemes?
0

31. What percentage of water is treated through conventional treatment in the formal distribution schemes? (coagulation, sedimentation, filtration, disinfection, stabilisation)?
100%

32. What percentage of water is treated through advanced treatment (ozone, UV, membrane, ion exchange, activated carbon, etc)
0

33. What percentage of water is not treated in the small standalone rural schemes?
None (i.e. all treated)

34. What percentage of water is treated through home treatment facilities in the small standalone rural schemes?
0%

35. What percentage of water is treated through basic disinfection in the small standalone rural schemes?
0%

36. What percentage of water is treated through convetional treatment in the small standalone schemes (coagulation, sedimentation, filtration, disinfection, stabilisation)?
100%

37. What percentage of water is treated through advanced treatment (ozone, UV, membrane, ion exchange, activated carbon, etc)?
0%

38. Are unit processes implemented at the treatment plants generally appropriate for the raw water quality?
No

39. Are all unit processes at the treatment plants generally operating effectively?
No

40. Are operator's manuals generally available on-site?
No

41. Are operator's manuals in the appropriate language?
No

42. Are standard plant operating procedures generally captured in writting (e.g. preparing batches of chhemicals, changing gas cyllinders, etc)
No

43. Are charts/graphs/jar test equipment/etc generally available at the plants for process control/correcting typical issues of concern (e.g. dosages/chemical feed rates posted on walls, etc)?
No

44. Are the plants generally operating within their design capacities? (i.e. is there spare capacity available?)
Yes

45. Are spare unit processes generally available at the plants for maintenance purposes (e.g. multiple settling tanks, filters, etc)?
No

46. Is there generally space available for future plant upgrades/expansion?
Yes

47. Is there generally sufficient storage capacity in the distribution network (i.e. sufficient reservoirs with sufficient capacity)?
No

48. In general, what is the physical condition of your water infrastructure?
Average

49. More specifically, what is the physical condition of the water treatment facilities?
Poor

50. More specifically, what is the physical condition of the reservoirs?
Average

51. More specifically, what is the physical condition of the distribution network?
Poor

52. More specifically, what is the physical condition of the pump stations?
Average

53. How is maintenance carried out?
Crisis (i.e. ad-hoc)

54. Indicate the frequency of maintenance at the water treatment facilities?
At least annually (i.e. every 12 months)

55. Indicate the frequency of maintenance at the reservoirs (cleaning, flushing)?
Only ad-hoc (crisis management)

56. Indicate the frequency of maintenance at the distribution network (cleaning, flushing)?
Only ad-hoc (crisis management)

57. Indicate the frequency of maintenance at the pump stations?
Only ad-hoc (crisis management)

58. How many wastewater treatment works are operated and maintained by your WSA?
4

59. Please list the names of all wastewater treatment works and indicate the type (e.g. conventional, activated sludge, trickling filter, RBC, etc)
Port Alred Bathurst Alexandria Kenton On Sea

60. Are all wastewater treatment works operating within their design capacity?
No

61. Do you monitor the volume of discharge from all wastewater treatment works?
No

62. If you have any points of importance related to Part B, please explain below:
Waste water treatment plants have DWAF exemption

Part C: Water Quality Monitoring, Laboratories and Logistics

1. How many towns (formal distribution) or schemes (small rural standalone) are within the WSA?
7

2. Please list the name of towns/schemes within your WSA?
Alexandria, Bushmans, Kenton On Sea, Kasouga, Port Alfred, Kleinemond, Bathurst

3. How many of these towns/schemes are currently monitored for drinking water quality?
Most (i.e. > 70%)

4. Do you have a sampling schedule for monitoring in towns (formal distribution schemes)?
Yes

5. Do you have a sampling schedule for small standalone rural scheme/s (spring, borehole etc)?
No

6. Are standard sampling procedures utilised (e.g. as per DWAF guidelines)?
No

7. Where is the water monitored?
Source
Water treatment plant outlet
Reservoirs
Distribution network (e.g. hydrants)
Consumers taps

8. If monitoring is not conducted at all of the above points, what is the reason/s therefore?
Funding (i.e. lack of appropriate budget)
Capacity (i.e. lack of staff or skills)

9. Do you have a list of all sample points?
Yes

10. Are GPS co-ordinates captured for all sample points?
No

11. What is the frequency of monitoring at the source/s?
Quarterly

12. What is the frequency of monitoring at the outlet/s of the drinking water treatment plant/s?
Quarterly

13. If drinking water quality is not assessed at the water treatment plant, is this because of a lack of:
Not applicable

14. What is the frequency of monitoring at bulk distribution?
Quarterly

15. What is the frequency of monitoring at reservoirs?
Quarterly

16. What is the frequency of monitoring at distribution network (e.g. hydrant)?
Quarterly

17. What is the frequency of monitoring at consumers taps?
Quarterly

18. In general, what is the frequency of basic chemical sampling (i.e. every x days)?
Every 90 days

19. In general, what is the frequency of biological sampling (i.e. every x days)?
Every 30 days

20. In general, what is the frequency of physical characteristics sampling (i.e. every x days)?
Every 30 days

21. More specifically, what is the frequency of biological monitoring at consumers taps?
Quarterly

22. More specifically, what is the frequency of physical-chemical monitoring at consumers taps?
Quarterly

23. Which of the following drinking water quality paramaters are monitored?
E.coli/Faecal coliforms
Total coliforms
pH
Turbidity
EC/TDS
Free Chlorine Residual
Other

24. What compliance is achieved for E.coli/faecal coliforms (vs. SANS 241 Column 5 of Table 1)?
Don't know

25. What compliance is achieved for chemical parameters that have a health implication (vs. SANS 241 Class I)?
Don't know

26. Please state the number of rural households receiving a drinking water of IDEAL quality.
0

27. Please state the number of rural households receiving a drinking water of GOOD quality.
100%

28. Please state the number of rural households receiving a drinking water of MARGINAL quality.
0

29. Please state the number of rural households receiving a drinking water of POOR quality.
0

30. Please state the number of rural households receiving a drinking water of UNACCEPTABLE quality.
0

31. Please sum the above total rural households and provide the total below.
100%

32. Please state the number of formal town/city households receiving a drinking water of IDEAL quality.
0

33. Please state the number of formal town/city households receiving a drinking water of GOOD quality.
17 000

34. Please state the number of formal town/city households receiving a drinking water of MARGINAL quality.
1 088

35. Please state the number of formal town/city households receiving a drinking water of POOR quality.
0

36. Please state the number of formal town/city households receiving a drinking water of UNACCEPTABLE quality.
0

37. Please sum the above total formal town/city households and provide the total below.
19 088

38. Are the drinking water quality results available for submission to DWAF?
Yes

39. Is drinking water quality data stored on an appropriate database?
No (i.e. only hard copy)

40. What kind of laboratory do you utilise for drinking water quality analysis?
External laboratory (WSP, Service Provider)

41. Please provide details of the laboratories utilised by the WSA for drinking water quality analysis (Name of laboratory, contact person, contact number)
NMMM Scientific Services in PE: Brian Mafongosi: tel 041 506 2333

42. What are staff skills at the internal WSA laboratories?
Not applicable

43. Are there sufficient staff at the internal WSA laboratories?
Not applicable

44. Do all internal WSA laboratories utilise standard methods of analysis?
Not applicable

45. Are internal WSA laboratories (one or more) SANAS accredited?
Not applicable

46. If applicable, what parameters are the internal WSA laboratories accredited for?
Not applicable

47. What is the condition of the equipment at the internal WSA laboratories?
Not applicable

48. How often is analytical equipment (e.g. turbidimeter) calibrated at the internal WSA laboratories?
Not applicable

49. Are chemicals/reagents required for analysis available at internal WSA laboratories?
Not applicable

50. Are external laboratories (e.g. WSP, Service Provider) SANAS accredited?
Yes

51. If applicable, what parameters are the external laboratories accredited for?
Biological and chemical

52. Are inter-laboratory studies conducted?
No

53. In general, do you experience logistical issues in doing your work?
Yes

54. Is the distance to communities/laboratories acceptable?
Yes

55. Do you have sufficient vehicles (transport)?

No

56. Are access roads in an acceptable condition?
No

57. Do you experience logistical issues related to infrastructure?
Yes

58. Do you and your staff have sufficient computers to fulfill required tasks?
Yes

59. Do you and your staff have acceptable email access to fulfill required tasks?
Yes

60. Do you and your staff have acceptable internet access to fulfill required tasks?
Yes

61. Do you and your staff have an acceptable server to save/back-up information?
Yes

62. Are any other logistical issues noted?
None

63. Are you aware of the DBSA LGnet initiative?
No

64. Are you already connected to LGNet?
No

65. If you are not connected has the WSA faxed an application for connectivity?
No

66. Are technical managers, water quality managers etc, connected to LGNet (router office)?
No

67. If they are not connected what are the possible reasons for this? (Please explain)
Municipality is not aware of the LGNet

68. What are the main obstacles preventing connectivity?
Not applicable
Don't know

69. Do technical managers, water quality managers, etc frequently access the LGNet?
Not applicable

70. Do technical managers, water quality managers, find LGNet useful?
Not applicable

71. Please list any other IT based tools that are utilised to effectively manage your water services?
eWQMS

72. Is the final wastewater effluent quality at all wastewater treatment works monitored on at least a monthly basis?
No

73. Please indicate the frequency of monitoring at wastewater treatment works.
Less Frequent/None

74. Where is wastewater quality monitored at the wastewater treatment works?
None/Don't know

75. Which of the following wastewater quality paramaters are monitored for the final wastewater effluent?
Not applicable

76. What kind of laboratory do you utilise for wastewater quality analysis?
No laboratory utilised

77. Are the laboratories utilised for wastewater quality analysis accredited?
Not applicable

78. Please provide details of the laboratories utilised by the WSA for wastewater quality analysis (Name of laboratory, contact person, contact number)
None

79. If you have any points of importance related to Part C, please explain below:

Telemetering required

Part D: Human Resources

1. Do you have an organisational organogram?
Yes

2. Have all required posts in the organogram been filled?
Some (> 50%)

3. If all posts have not been filled, please indicate reasons for this:
Lack of funds

4. Have responsibilities been assigned to water treatment plant operators/process controllers?
No

5. Have responsibilities been assigned for network plumbers?
No

6. Have responsibilities been assigned for laboratory staff?
Not applicable

7. Have responsibilities been assigned for mechanical repairs staff?
Not applicable

8. Have responsibilities been assigned for electrical repairs staff?
No

9. Have responsibilities been assigned for field technicians/samplers?
No

10. In general, do you have adequate staff (numbers)?
No

11. More specifically, do you have sufficient water treatment plant operators/process controllers?
No

12. More specifically, do you have sufficient network plumbers?
No

13. More specifically, do you have sufficient laboratory staff?
Not applicable

14. More specifically, do you have sufficient mechanical staff for repairs?
Not applicable

15. More specifically, do you have sufficient electrical staff for repairs?
No

16. More specifically, do you have sufficient field technicians/samplers?
No

17. In general, are your staff members adequately skilled?
No

18. In general, would you say your staff are:
Semi-skilled

19. More specifically, do existing water treatment plant operators/process controllers have appropriate qualifications and skills?
< 50%/None

20. More specifically, do existing network plumbing staff have appropriate qualifications and sufficient skills?
< 50%/None

21. More specifically, do existing laboratory staff have appropriate qualifications and sufficient skills?
Not applicable

22. More specifically, do existing mechanical repairs staff have appropriate qualifications and sufficient skills?
Not applicable

23. More specifically, do existing electrical repairs staff have appropriate qualifications and sufficient skills?
Most (i.e. > 70%)

24. More specifically, do existing field technicians/samplers have appropriate qualification and sufficient skills?
< 50%/None

25. Are water treatment plant operators/process controllers staff computer literate?
<50%/None

26. Are network plumbers computer literate?
<50%/None

27. Are laboratory staff computer literate?
Not applicable

28. Are mechanical staff repairs computer literate?
Not applicable

29. Are electrical staff repairs computer literate?
<50%/None

30. Are field technicians/samplers computer literate?
<50%/None

31. Do all staff that require computers for their functions have access to computers?
Some (i.e. 50%)

32. Do all staff that require access to e-mail for their functions have access to email?
Some (i.e. 50%)

33. Do all staff that require access to internet for their functions have access to internet?
Some (i.e. > 50%)

34. What training is required by the water treatment plant operators/process controllers?
Technical
Legal

35. What training is required by the network plumbers?
Technical
Legal

36. What training is required by the laboratory staff?
None/Not applicable

37. What training is required by the mechanical repairs staff?
None/Not applicable

38. What training is required by the electrical repair staff?
Technical
Legal

39. What training is required by field technicians/samplers?
Technical
Legal

40. Have you investigated training courses for staff who require training?
Yes

41. If training is not done, what are the reasons for this?
Staff development plan has not been compiled
Other

42. If training has been investigated what are present training course options?
Do not know

43. Do you have trouble attracting well qualified staff?
No

44. Do you have high staff turn over? (i.e do you often lose staff)
Yes

45. Are systems in place for staff appraisal and feedback?
No

46. Are procedures/training manuals available for training new staff?
No

47. If you have any points of importance related to Part D, please explain below:
None

Part E: Management

1. Have responsibilities been assigned for top management?
Yes

2. Have responsibilities been assigned for middle management?
Yes

3. Do you have sufficient top managers?
No

4. Do you have sufficient middle managers?
No

5. Do exisiting top managers have appropriate qualifications and skills?
Yes (i.e. 100%)

6. Do existing middle managers have appropriate qualifications and skills?
Yes (i.e. 100%)

7. Are top managers computer literate?
Most (i.e. > 70%)

8. Are middle managers computer literate?
Most (i.e. > 70%)

9. Do all managers have access to computer?
Yes (i.e. 100%)

10. Do all managers have access to e-mail?
Yes (i.e. 100%)

11. Do all managers have access to internet?
Yes (i.e. 100%)

12. What training is required by top management?
Legal

13. What training is required by middle management?
Technical
Legal

14. Is a checklist/logbook regularly completed/updated at the plant/s?
No

15. Is the logbook reviewed by supervisors and adjustments made acccordingly?
No

16. Is a report highlighting issues of concern at the plant (quality, malfuntions etc) produced on a monthly basis?
Yes

17. Is a report highlighting issues of concern in the distribution network (quality, need for flushing etc) produced on a monthly basis?
Yes

18. Do you have a customer complaints register/system?
No

19. Do you track complaints?
Yes

20. What is the status of your customer complaints register/system?
Not functional

21. Are records kept on the number and details of callouts per year?
No

22. With regards to attending to complaints related to water service delivery, how many water callouts do you receive in rural areas per year (number)?
10

23. How many of these callouts do you respond to within 24 hours per year (number and percentage)?
10 = 100%

24. With regards to attending to complaints related to water service delivery, how many water callouts do you receive in formal towns/cities per year (number)?
720

25. How many of these callouts do you respond to within 24 hours per year (number and percentage)?
720 = 100%

26. With regards to attending to complaints related to sanitation service delivery, how many sanitation callouts do you receive in rural areas per year (number)?
0

27. How many of these callouts do you respond to within 24 hours per year (number and percentage)?
n/a

28. With regards to attending to complaints related to sanitation service delivery, how many sanitation callouts do you receive in formal towns/cities per year (number)?
2 400

29. How many of these callouts do you respond to within 24 hours per year (number and percentage)?
2400 = 100%

30. Are records kept on the details of interruptions in water supply per year?
No

31. With regards to water service reliability, how many rural households experience more than 7 days interruption per year (number)?
0

32. With regards to water service reliability, how many formal town/city households experience more than 7 days interruption per year (number)?
0

33. With regards to water service reliability, how many rural households experience flow of less than 10 litres/minute (water pressure) (NOTE: not to be confused with interruption to supply)?
0

34. With regards to water service reliability, how many formal town/city households experience flow of less than 10 litres/minute (water pressure) (NOTE: not to be confused with interruption to supply)?
0

35. Is there a management report in terms of water services?
No

36. Is the water services management report available to DWAF?
No

37. Do you have an Institutional Development Plan for the purpose of operating the schemes optimally?
No

38. Is there a management report in terms of water quality?
Yes

39. Are drinking water related issues/findings discussed in appropriate water meetings on a regular basis?
Yes

40. Is the water quality management report available to DWAF?
Yes

41. Are monthly drinking water reports submitted to DWAF?
No

42. If and where issues of concern are noted, are required corrective actions implemented timeously?
Sometimes

43. Have emergency procedures been developed?
No

44. Are water issues discussed at council meetings?
Yes

45. Are drinking water issues specifically discussed at council meetings?
Yes

46. Are councilors aware of the importance of drinking water quality monitoring and management?
Yes

47. Is there a water champion within the council?

No

48. If you have any points of importance related to Part E, please explain below:
None

Part F: Finances

1. Do you have a copy of Municipal Finance Management Act?
Yes

2. Have you read, understood and implemented the Municipal Finance Management Act?
Yes

3. Have you implemented Supply Chain Management?
Yes

4. Has a procurement protocol been implemented?
Yes

5. Are water accounts sent to consumers?
Yes

6. Are accounts tracked and revenue collected?
Yes

7. Is revenue collected from water sales used for subsidising other services?
No

8. Do you feel that you are complying to your legal responsibilities related to finances?
Yes

9. Do you have a capital investment programme (3 year or 5 year)?
No

10. What is your capital budget (please specify units)?
R0.6M

11. Have you developed an operational budget (either a 3 year or 5 year)?
Yes

12. What is your total water operational budget (please specify units)?
R19.5M

13. What is your operational budget for maintenance (please specify units)?
R 8M

14. What is your operational budget for water treatment (please specify units)?
Not specified

15. What is your operational budget for water quality monitoring (please specify units)?
R 200 000

16. Do you feel that you have sufficient budget for maintenance?
No

17. Do you feel that you have sufficient budget for water treatment?
No

18. Do you feel that you have sufficient budget for water quality monitoring?
No

19. Have you used the DWAF DWQM Cost Model to cross-check/calculate the cost of a basic DWQM programme for your WSA?
No

20. Have you incorporated the required costs for effective DWQM into your operational budget (3 year or 5 year)?
No

21. When will sufficient budget be available for DWQM (i.e. if not presently sufficient)?
Do not know

22. If you have any points of importance related to Part F, please explain below:
None