MALAMULELE TREATMENT WATER PLANT

| | TABLE 1.1 | | | | |
|------|---|--------|--|--|--|
| | NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING | | | | |
| | Criterion | Weight | | | |
| | 2. NON-TECHNICAL ASSESSMENT | | | | |
| 2A: | Management Issues | 0.1 | | | |
| 2B: | Management Practices | 0.2 | | | |
| 2C: | Human Resources | 0.2 | | | |
| 2D: | Financial Systems | 0.1 | | | |
| 2E: | Communication Systems | 0.2 | | | |
| 2F: | Safety, Health and Environmental Quality | 0.15 | | | |
| 2G: | Community Involvement and Awareness | 0.05 | | | |
| TOTA | L | 1.0 | | | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 1 | .2 | |
|-------------------------------|--|----|--|
| Criteri | Criterion | | |
| 2. N | NON-TECHNICAL ASSESSMENT | I | |
| 2A: M | anagement Issues | | |
| | Does a strategic plan for the assessment of drinking water supply systems exist? | 1 | |
| | Are there preventive strategic plans for drinking water quality management? | 1 | |
| Assessment of strategic plans | Is there a strategic plan for recruitment of personnel per water treatment plant available? | 1 | |
| | Is there a strategic plan for operational monitoring and verification of drinking water system? | 1 | |
| | Is there a strategic plan for sharing and clarifying roles and responsibilities among all personnel involved in the production of safe drinking water quality? | 1 | |
| | Does a strategic plan for training and development of water plant personnel, and for community involvement and awareness exist? | 1 | |

| | Is there any funding strategic plan for implementation of drinking water quality management programmes? | 1 |
|--|---|-----|
| Assessment of | Does a tactical plan for handling emergencies including communication of such emergencies to communities exist? | 1 |
| sessment | Is the overall periodic overseeing of water care function performed? | 1 |
| Ass | Is there maintenance and asset management plans? | 1 |
| tional | Is the attendance of process controllers (and in particular shift workers) at the treatment plant monitored? Is there a clock–in-system for the attendance? | 1 |
| opera | Is the superintendent available to operators on a day-to-day basis? | 1 |
| Assessment of operational | Is there a substitute system plan put in place when one of the operators is ill or away attending a course? | 1 |
| Assessi | Are the supervisors and process controllers aware of their job requirements? Are job descriptions available? | 1 |
| Maximum possible score for Management Issues | | 14 |
| Total score attained for Management Issues | | 14 |
| Weight for Management Issues | | 0.1 |
| Tota | l weighted score for Management Issues | 0.1 |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tab | le 1.3 | |
|---|----------|----------|
| Criterion | Yes =1 | No = 0 |
| 2. NON-TECHNICAL ASSESSMENT | <u>I</u> | 1 |
| 2B: Management Practices | | |
| Do the WSPs use existing local (Emanti/DWAF) or international management practices? Are they implementing them in their water treatment plants? | 1 | |
| Are the WPSs able to understand the existing local or international practices and implementing them correctly? | 1 | |
| When local or international practices are not available, are the WSPs able to draw their own criteria? | 1 | |
| Maximum possible score for Management Practices | | <u> </u> |
| Total score attained for Management Practices | 3 | |
| Weight for Management Practices | | |
| Total weighted score for Management Practices | 0.2 | |

| Criterio | 1 | Yes =1 | No = 0 |
|--------------------------------|---|--------|-----------|
| 2. NC | ON-TECHNICAL ASSESSMENT | | 1 |
| 2C: Hu | man Resources | | |
| <u> </u> | Is the number of personnel related to the size of the plant? | | 0 |
| lani | | | ļ . |
| Personnel at the plant | Are the needs of process controllers/supervisors and shift workers per plants adequate? | | 0 |
| onnel | Are there specific guidelines/rules for shift workers and their deployment? | 1 | |
| Pers | How many operators are there in total? How many shift workers? | 1 | |
| su _ | How many operators with qualifications in the DWAF categories? | 1 | |
| Qualifications of Personnel | Are personnel being correctly applied according to their qualifications? | 1 | |
| Qualid of Per | Are there guidelines or formal rules for upgrading of qualifications? | 1 | |
| | Are there in service training programmes and policies? What is the in-service training policy of the WSA? | 1 | |
| | Do process controllers / supervisors / managers know what training opportunities and courses are available? | 1 | |
| | Are they sent on courses regularly? | | 0 |
| Veeds | Are there specific criteria or formal rules to be qualified for training? | 1 | |
| raining Needs | Are there specific promotion requirement protocols in place? | 1 | |
| Trai | Are there career advancement opportunities? | 1 | |
| | Is the plant classified by DWAF? | | 0 |
| Plant class | Has it been done according to the new classification system? | | 0 |
| | Are the responsibilities of process controllers, supervisors and plant managers in line with their salary? | | 0 |
| | What system is used for overtime management and payment? | 1 | |
| | What is the WSA policy on conflict management (internal and external)? | 1 | |
| Working Conditions | Is any medical assistance available for on the job injuries? | 1 | |
| | Can all workers participate in medical schemes? | 1 | |
| | Are the retirement/pension-aid benefits, the housing and travel allowance benefits available? | 1 | |
| | Are the leave benefits (vacation /study/ sick), and the bonus scheme available? | 1 | |

| 1 |
|-------|
| 1 |
| or? 1 |
| 1 |
| 27 |
| 22 |
| 0.2 |
| 0.163 |
| · |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 1.5 | | | |
|--|--|--------|--------|
| Criterion | | Yes =1 | No = 0 |
| 2. NOI | N-TECHNICAL ASSESSMENT | | |
| 2D: Fina | ncial Systems | | |
| sma | Which financial systems are in place? | 1 | |
| Systems | Are there sufficient funds for operation, maintenance and overtime? | | 0 |
| Financial Sharing in Place | Do the size of the plants (small versus large) influence the allocation of funds? | 1 | |
| Financial Sharing i | Does the WSA's budgeting system work in relation to emergency funds, scheduled upgrading/extensions, unscheduled rehabilitation/upgrading? | 1 | |
| Information Sharing in Place | Are there communication channels and transparency between the financial section and the water care section? | 1 | |
| S uc | Are regular meetings held? Who attends / chairs these meetings? | 1 | |
| rmatic | Are decisions taken at consensus / majority? | 1 | |
| Informa in Place | Are reports freely available? | 1 | |
| | Is the procurement system transparent? | 1 | |
| ınt | Is the procurement system open to all? | 1 | |
| Procurement System | Is the water sector involved in the adjudication of tenders? | 1 | |
| Maximur | n possible score for Financial Systems | 11 | ı |

| Total score attained for Financial Systems | 10 |
|--|--------|
| Weight for Financial Systems | 0.1 |
| Total weighted score for Financial Systems | 0.0091 |

| NON-T | ECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 1.6 | | |
|--|---|--------|--------|
| Criterio | n | Yes =1 | No = 0 |
| 2. NO | ON-TECHNICAL ASSESSMENT | l | |
| 2E: Co | ommunication Systems | | |
| | Are there sufficient internal communication channels in place, including the needs and shortcomings? | 1 | |
| | Are these communication channels effective? | 1 | |
| | Is the communication between supervisors and process controllers good or poor? | 1 | |
| Internal | Is there any interaction between the maintenance team and the rest of personnel in the water treatment plant? | 1 | |
| | Is the communication between management and lower level process controllers good or poor? | 1 | |
| | Are there sufficient communication channels with other Municipalities and/or Departments? | 1 | |
| rnal | Are there sufficient communication channels with consumers? | 1 | |
| External | Are these external communication channels effective, good or poor? | 1 | |
| Maximum possible score for Communication Systems | | | |
| Total score attained for Communication Systems | | 8 | |
| Weight for Communication Systems | | 0.2 | |
| Total w | Total weighted score for Communication Systems | | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 1.7 | | | |
|--|--|--------|--------|
| Criterion | | Yes =1 | No = 0 |

| 2. NON-TECHNICAL ASSESSMENT | | | |
|---------------------------------|---|------|--|
| 2F: Auc | dit of safety, health and environmental quality | | |
| | Are there water and safety management procedures for normal operation, incidents and emergency situations? | 1 | |
| | Is there any safety plan at water treatment plants including the safety of process controllers on duties? | 1 | |
| ys. | Are there emergency plans in place for chlorine leaks? | 1 | |
| Safety Matters | Are there hazardous chemicals and ablution facilities, appropriate fire extinguishers location? | 1 | |
| Safet | Are safety meetings held regularly and who attends such meetings? | 1 | |
| its | Are there representatives for health and safety of consumers? If yes, are they effective? | 1 | |
| Health Aspects | Are there control measures that identify risks and ensure that health based-targets are met in terms of providing safe drinking water to all consumers? | 1 | |
| Heal | Are there emergency measures in place for water quality health impact? | 1 | |
| | Are process controllers satisfied with their working environment? | 1 | |
| mental | Is the working environment appropriate for improving or accelerating the service delivery? | 1 | |
| Environmental Quality | Is there any strategic plan to improve the quality of the working environment? | 1 | |
| Maximum possible score for SHEQ | | 11 | |
| Total score attained for SHEQ | | 11 | |
| Weight for SHEQ | | 0.15 | |
| Total weighted score for SHEQ | | 0.15 | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 1.8 | | | |
|-----------------------------|--|--------|--------|--|
| Criterion | | Yes =1 | No = 0 | |
| 2. NON | 2. NON-TECHNICAL ASSESSMENT | | | |
| 2G: Com | 2G: Community involvement and awareness | | | |
| unit eme | Are there protocols involved communities in decision-making? | | 0 | |
| Commi y Involve nt | Is there an effective reporting system for communities to assist in more rapid response to any water quality incident? | | 0 | |

| | Is there a Consumer Service to which non-compliance can be reported? | | 0 |
|--|---|-------|---|
| suess | Is there a mechanism system to receive and actively address community complaints in a timely fashion? | 1 | |
| Community Awareness | Are there procedures for promptly advising of any significant incidents within the drinking water supply including notification of the public health authority? | 1 | |
| Сотт | Is there any water quality information system available to consumers through annual reports and in the internet? | 1 | |
| Maximum possible score for Community Involvement | | 6 | |
| Total score attained for Community Involvement | | 3 | |
| Weight for Community Involvement | | 0.05 | |
| Total weighted score for Community Involvement | | 0.025 | |

| | TABLE 1.9 | | | | |
|-------|--|----------------|--|--|--|
| | NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING: | | | | |
| Total | Total Weighted Scoring for Malamulele treatment water plant 92.9 % | | | | |
| | Compliance Criterion | Weighted Score | | | |
| 2. | NON-TECHNICAL ASSESSMENT | , | | | |
| 2A: | Management Issues | 0.1 | | | |
| 2B: | Management Practices | 0.2 | | | |
| 2C: | Human Resources | 0.163 | | | |
| 2D: | Financial Systems | 0.091 | | | |
| 2E: | Communication Systems | 0.2 | | | |
| 2F: | Safety, Health and Environmental Quality | 0.15 | | | |
| 2G: | Community Involvement and Awareness | 0.025 | | | |
| TOTA | AL WEIGHTED SCORE | 0.929 | | | |
| | | | | | |

| | TABLE 1.10 |
|----------------------|------------------------------|
| NON-TECHNICAL (MA | NAGEMENT) COMPLIANCE RATING: |
| Total Weighted Score | Rating Description |
| 0 – 50 | Class 3 Compliance: |

| | Total non-compliance; serious and immediate intervention required (TAC) |
|----------|---|
| 50 – 90 | Class 2 Compliance: Serious challenges requiring attention and improvement |
| 90 – 100 | Class 1 Compliance: Acceptable compliance |

VONDO TREATMENT PLANT

| | TABLE 2.1 | | | | |
|------|---|--------|--|--|--|
| | NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING | | | | |
| | Criterion | Weight | | | |
| | 2. NON-TECHNICAL ASSESSMENT | | | | |
| 2A: | Management Issues | 0.1 | | | |
| 2B: | Management Practices | 0.2 | | | |
| 2C: | Human Resources | 0.2 | | | |
| 2D: | Financial Systems | 0.1 | | | |
| 2E: | Communication Systems | 0.2 | | | |
| 2F: | Safety, Health and Environmental Quality | 0.15 | | | |
| 2G: | Community Involvement and Awareness | 0.05 | | | |
| TOTA | L | 1.0 | | | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 2.2 | | | |
|------------------|--|---|--|--|
| Criterio | Criterion $ Yes = 1 $ | | | |
| 2. NO | ON-TECHNICAL ASSESSMENT | | | |
| 2A: Ma | nagement Issues | | | |
| ent of plans | Does a strategic plan for the assessment of drinking water supply systems exist? | 1 | | |
| essme tegic p | Are there preventive strategic plans for drinking water quality management? 1 Is there a strategic plan for recruitment of personnel per water treatment plant | | | |
| Asse | Is there a strategic plan for recruitment of personnel per water treatment plant | 1 | | |

| | available? | | |
|--|--|---|-----|
| | available: | | |
| | Is there a strategic plan for operational monitoring and verification of drinking water system? | 1 | |
| | Is there a strategic plan for sharing and clarifying roles and responsibilities among all personnel involved in the production of safe drinking water quality? | 1 | |
| | Does a strategic plan for training and development of water plant personnel, and for community involvement and awareness exist? | 1 | |
| | Is there any funding strategic plan for implementation of drinking water quality management programmes? | 1 | |
| f tact s | Does a tactical plan for handling emergencies including communication of such emergencies to communities exist? | 1 | |
| Assm of tact plans | Is the overall periodic overseeing of water care function performed? | 1 | |
| As | Is there maintenance and asset management plans? | 1 | |
| tional | Is the attendance of process controllers (and in particular shift workers) at the treatment plant monitored? Is there a clock–in-system for the attendance? | 1 | |
| operat | Is the superintendent available to operators on a day-to-day basis? | 1 | |
| Assessment of operational plans | Is there a substitute system plan put in place when one of the operators is ill or away attending a course? | 1 | |
| Assess | Are the supervisors and process controllers aware of their job requirements? Are job descriptions available? | 1 | |
| Maximum possible score for Management Issues | | | 14 |
| Total score attained for Management Issues | | : | 14 |
| Weight for Management Issues | | (|).1 |
| Total weighted score for Management Issues | | (| 0.1 |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 2.3 | | | |
|------|---|---|--------|--|
| Crit | Criterion | | No = 0 | |
| 2. | 2. NON-TECHNICAL ASSESSMENT | | | |
| 2B: | Management Practices | | | |
| | Do the WSPs use existing local (Emanti/DWAF) or international management practices? Are they implementing them in their water treatment plants? | 1 | | |
| | Are the WPSs able to understand the existing local or international practices and implementing them correctly? | 1 | | |

| | When local or international practices are not available, are the WSPs able to draw their own criteria? | 1 | |
|---|--|-----|--|
| Maxim | um possible score for Management Practices | 3 | |
| Total score attained for Management Practices | | 3 | |
| Weight | Weight for Management Practices | | |
| Total w | reighted score for Management Practices | 0.2 | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 2.4 | | |
|--------------------------------|---|----|-----|
| Criterion | Yes =1 | No | = 0 |
| 2. NON | TECHNICAL ASSESSMENT | | |
| 2C: Huma | nn Resources | | |
| ant | Is the number of personnel related to the size of the plant? | | 0 |
| Personnel at the plant | Are the needs of process controllers/supervisors and shift workers per plants adequate? | | 0 |
| onnel | Are there specific guidelines/rules for shift workers and their deployment? | 1 | |
| Persc | How many operators are there in total? How many shift workers? | 1 | |
| su | How many operators with qualifications in the DWAF categories? | 1 | |
| icatio onnel | Are personnel being correctly applied according to their qualifications? | 1 | |
| Qualifications of Personnel | Are there guidelines or formal rules for upgrading of qualifications? | 1 | |
| | Are there in service training programmes and policies? What is the in-service training policy of the WSA? | 1 | |
| | Do process controllers / supervisors / managers know what training opportunities and courses are available? | 1 | |
| | Are they sent on courses regularly? | 1 | |
| leeds | Are there specific criteria or formal rules to be qualified for training? | 1 | |
| Training Needs | Are there specific promotion requirement protocols in place? | 1 | |
| Train | Are there career advancement opportunities? | 1 | |
| | Is the plant classified by DWAF? | | 0 |
| Plant class | Has it been done according to the new classification system? | | 0 |
| ng C on di | Are the responsibilities of process controllers, supervisors and plant managers in | | 0 |

| line with their salary? | | |
|---|---|------|
| What system is used for overtime management and payment? | 1 | |
| What is the WSA policy on conflict management (internal and external)? | 1 | |
| Is any medical assistance available for on the job injuries? | 1 | |
| Can all workers participate in medical schemes? | 1 | |
| Are the retirement/pension-aid benefits, the housing and travel allowance benefits available? | 1 | |
| Are the leave benefits (vacation /study/ sick), and the bonus scheme available? | 1 | |
| Are there any other incentives? | 1 | |
| Are plant personnel satisfied with their working environment? | 1 | |
| Are the relationships between supervisors and their subordinates good or poor? | 1 | |
| Is there any performance indicators? | 1 | |
| Maximum possible score for Human Resources | | 27 |
| Total score attained for Human Resources | | 22 |
| Weight for Human Resources | | 0.2 |
| Total weighted score for Human Resources | | .163 |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tak | ole 2.5 | |
|------------------------------------|--|---------|--------|
| Criterion | | Yes =1 | No = 0 |
| 2. NON | T-TECHNICAL ASSESSMENT | | |
| 2D: Finan | ncial Systems | | |
| ; in Place | Which financial systems are in place? | 1 | |
| Financial Systems Sharing in Place | Are there sufficient funds for operation, maintenance and overtime? | 1 | |
| al Systen | Do the size of the plants (small versus large) influence the allocation of funds? | 1 | |
| Financi | Does the WSA's budgeting system work in relation to emergency funds, scheduled upgrading/extensions, unscheduled rehabilitation/upgrading? | 1 | |

| Sharing | Are there communication channels and transparency between the financial section and the water care section? | 1 | |
|--|---|-----|--|
| | Are regular meetings held? Who attends / chairs these meetings? | 1 | |
| Information in Place | Are decisions taken at consensus / majority? | 1 | |
| Informa in Place | Are reports freely available? | 1 | |
| | Is the procurement system transparent? | 1 | |
| nt and | Is the procurement system open to all? | 1 | |
| Procurement System | Is the water sector involved in the adjudication of tenders? | 1 | |
| Maximum | Maximum possible score for Financial Systems | | |
| Total score attained for Financial Systems | | 11 | |
| Weight for Financial Systems | | 0.1 | |
| Total weighted score for Financial Systems | | 0.1 | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 2.6 | | | |
|--------------|---|--------|--------|--|
| Crite | rion | Yes =1 | No = 0 | |
| 2. | NON-TECHNICAL ASSESSMENT | | | |
| 2E: | Communication Systems | | | |
| | Are there sufficient internal communication channels in place, including the needs and shortcomings? | 1 | | |
| | Are these communication channels effective? | 1 | | |
| | Is the communication between supervisors and process controllers good or poor? | 1 | | |
| 1 | Is there any interaction between the maintenance team and the rest of personnel in the water treatment plant? | 1 | | |
| nal Internal | Is the communication between management and lower level process controllers good or poor? | 1 | | |
| | Are there sufficient communication channels with other Municipalities and/or Departments? | 1 | | |
| External | Are there sufficient communication channels with consumers? | 1 | | |

| | Are these external communication channels effective, good or poor? | 1 | |
|--|--|---|-----|
| Maxim | Maximum possible score for Communication Systems | | 8 |
| Total score attained for Communication Systems | | | 8 |
| Weight | for Communication Systems | | 0.2 |
| Total w | eighted score for Communication Systems | | 0.2 |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tab | le 2.7 | |
|-------------------------------|---|--------|-----------|
| Criterio | on | Yes =1 | No = 0 |
| 2. N | ON-TECHNICAL ASSESSMENT | | |
| 2F: A | udit of safety, health and environmental quality | | |
| | Are there water and safety management procedures for normal operation, incidents and emergency situations? | 1 | |
| | Is there any safety plan at water treatment plants including the safety of process controllers on duties? | 1 | |
| δύ | Are there emergency plans in place for chlorine leaks? | 1 | |
| Safety Matters | Are there hazardous chemicals and ablution facilities, appropriate fire extinguishers location? | 1 | |
| Safet | Are safety meetings held regularly and who attends such meetings? | 1 | |
| ıts | Are there representatives for health and safety of consumers? If yes, are they effective? | 1 | |
| Health Aspects | Are there control measures that identify risks and ensure that health based-targets are met in terms of providing safe drinking water to all consumers? | 1 | |
| Heal | Are there emergency measures in place for water quality health impact? | 1 | |
| | Are process controllers satisfied with their working environment? | 1 | |
| mental | Is the working environment appropriate for improving or accelerating the service delivery? | 1 | |
| Environmental Quality | Is there any strategic plan to improve the quality of the working environment? | | 0 |
| Maxim | um possible score for SHEQ | 11 | • |
| Total score attained for SHEQ | | 10 | |
| Weight for SHEQ | | 0.15 | |
| Total w | reighted score for SHEQ | 0.136 | <u> </u> |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 2.8 | | | |
|--|---|--------|--------|
| Criterion | | Yes =1 | No = 0 |
| 2. NO | N-TECHNICAL ASSESSMENT | | |
| 2G: Com | nmunity involvement and awareness | | |
| | Are there protocols involved communities in decision-making? | 1 | |
| Community Involvement | Is there an effective reporting system for communities to assist in more rapid response to any water quality incident? | 1 | |
| Com Invo | Is there a Consumer Service to which non-compliance can be reported? | 1 | |
| ness | Is there a mechanism system to receive and actively address community complaints in a timely fashion? | 1 | |
| Community Awareness | Are there procedures for promptly advising of any significant incidents within the drinking water supply including notification of the public health authority? | 1 | |
| Commu | Is there any water quality information system available to consumers through annual reports and in the internet? | | 0 |
| Maximum possible score for Community Involvement | | | 6 |
| Total score attained for Community Involvement | | 5 | |
| Weight for Community Involvement | | 0 | .05 |
| Total weighted score for Community Involvement | | 0.042 | |

| | TABLE 2.9 | | | |
|-------|---|----------------|--|--|
| | NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING: | | | |
| Total | Total Weighted Scoring for Vondo treatment plant 94.1 % | | | |
| | Compliance Criterion | Weighted Score | | |
| 2. | NON-TECHNICAL ASSESSMENT | , | | |
| 2A: | Management Issues | 0.1 | | |
| 2B: | Management Practices | 0.2 | | |
| 2C: | Human Resources | 0.163 | | |
| 2D: | Financial Systems | 0.1 | | |
| 2E: | Communication Systems | 0.2 | | |
| 2F: | Safety, Health and Environmental Quality | 0.136 | | |

| 2G: Community Involvement and Awareness | 0.042 |
|---|-------|
| TOTAL WEIGHTED SCORE | 0.941 |

| TABLE 2.10 | | | |
|---|--|--|--|
| NON-TECHNICAL (MANAGEMENT) COMPLIANCE RATING: | | | |
| Total Weighted Score | Rating Description | | |
| 0 – 50 | Class 3 Compliance: Total non-compliance; serious and immediate intervention required (TAC) | | |
| 50 – 90 | Class 2 Compliance: Serious challenges requiring attention and improvement | | |
| 90 – 100 | Class 1 Compliance: Acceptable compliance | | |

MUTSHEDZI PLANT

| | TABLE 3.1 | | | | |
|-------|---|--------|--|--|--|
| | NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING | | | | |
| | Criterion | Weight | | | |
| | 2. NON-TECHNICAL ASSESSMENT | | | | |
| 2A: | Management Issues | 0.1 | | | |
| 2B: | Management Practices | 0.2 | | | |
| 2C: | Human Resources | 0.2 | | | |
| 2D: | Financial Systems | 0.1 | | | |
| 2E: | Communication Systems | 0.2 | | | |
| 2F: | Safety, Health and Environmental Quality | 0.15 | | | |
| 2G: | Community Involvement and Awareness | 0.05 | | | |
| TOTAL | L | 1.0 | | | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 3 | .2 | |
|-------------------------------|--|-----------|--------|
| Criteri | on | Yes =1 | No = 0 |
| 2. N | ON-TECHNICAL ASSESSMENT | | |
| 2A: Ma | inagement Issues | | |
| | Does a strategic plan for the assessment of drinking water supply systems exist? | 1 | |
| | Are there preventive strategic plans for drinking water quality management? | 1 | |
| | Is there a strategic plan for recruitment of personnel per water treatment plant available? | 1 | |
| lans | Is there a strategic plan for operational monitoring and verification of drinking water system? | 1 | |
| Assessment of strategic plans | Is there a strategic plan for sharing and clarifying roles and responsibilities among all personnel involved in the production of safe drinking water quality? | 1 | |
| nent of s | Does a strategic plan for training and development of water plant personnel, and for community involvement and awareness exist? | 1 | |
| Assessn | Is there any funding strategic plan for implementation of drinking water quality management programmes? | 1 | |
| nt of | Does a tactical plan for handling emergencies including communication of such emergencies to communities exist? | 1 | |
| Assessment of tact plans | Is the overall periodic overseeing of water care function performed? | 1 | |
| Asse | Is there maintenance and asset management plans? | 1 | |
| ional | Is the attendance of process controllers (and in particular shift workers) at the treatment plant monitored? Is there a clock–in-system for the attendance? | 1 | |
| perat | Is the superintendent available to operators on a day-to-day basis? | 1 | |
| Assessment of operat plans | Is there a substitute system plan put in place when one of the operators is ill or away attending a course? | 1 | |
| | Are the supervisors and process controllers aware of their job requirements? Are job descriptions available? | 1 | |
| Maxim | um possible score for Management Issues | | 14 |
| Total s | core attained for Management Issues | | 14 |
| Weigh | t for Management Issues | | 0.1 |
| Total v | veighted score for Management Issues | | 0.1 |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 3.3 | | |
|---|--------|--------|
| Criterion | Yes =1 | No = 0 |
| 2. NON-TECHNICAL ASSESSMENT | | |
| 2B: Management Practices | | |
| Do the WSPs use existing local (Emanti/DWAF) or international management practices? Are they implementing them in their water treatment plants? | 1 | |
| Are the WPSs able to understand the existing local or international practices and implementing them correctly? | 1 | |
| When local or international practices are not available, are the WSPs able to draw their own criteria? | 1 | |
| Maximum possible score for Management Practices | 3 | I |
| Total score attained for Management Practices | 3 | |
| Weight for Management Practices | | |
| Total weighted score for Management Practices | 0.2 | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 3.4 | | | |
|---------------------------------|---|--------|-----------|--|
| Criterion | | Yes =1 | No = 0 | |
| 2. NON- | TECHNICAL ASSESSMENT | | | |
| 2C: Huma | nn Resources | | | |
| | Is the number of personnel related to the size of the plant? | | 0 | |
| ıe plant | Are the needs of process controllers/supervisors and shift workers per plants adequate? | | 0 | |
| el at tŀ | Are there specific guidelines/rules for shift workers and their deployment? | 1 | | |
| Personnel at the plant | How many operators are there in total? How many shift workers? | 1 | | |
| ion of | How many operators with qualifications in the DWAF categories? | 1 | | |
| Qualification s Personnel | Are personnel being correctly applied according to their qualifications? | 1 | | |
| Qua s Perse | Are there guidelines or formal rules for upgrading of qualifications? | 1 | | |
| Train ing Need s | Are there in service training programmes and policies? What is the in-service training policy of the WSA? | 1 | | |

| | Do process controllers / supervisors / managers know what training opportunities and courses are available? | 1 | |
|----------------------------|---|-------|---|
| | Are they sent on courses regularly? | | 0 |
| | Are there specific criteria or formal rules to be qualified for training? | 1 | |
| | Are there specific promotion requirement protocols in place? | 1 | |
| | Are there career advancement opportunities? | 1 | |
| it s | Is the plant classified by DWAF? | | 0 |
| Plant | Has it been done according to the new classification system? | | 0 |
| | Are the responsibilities of process controllers, supervisors and plant managers in line with their salary? | | 0 |
| | What system is used for overtime management and payment? | 1 | |
| | What is the WSA policy on conflict management (internal and external)? | 1 | |
| | Is any medical assistance available for on the job injuries? | 1 | |
| | Can all workers participate in medical schemes? | 1 | |
| | Are the retirement/pension-aid benefits, the housing and travel allowance benefits available? | 1 | |
| | Are the leave benefits (vacation /study/ sick), and the bonus scheme available? | 1 | |
| su | Are there any other incentives? | 1 | |
| ditio | Are plant personnel satisfied with their working environment? | 1 | |
| Working Conditions | Are the relationships between supervisors and their subordinates good or poor? | 1 | |
| Worl | Is there any performance indicators? | 1 | |
| Maximum | possible score for Human Resources | 27 | 1 |
| Total score | e attained for Human Resources | 21 | |
| Weight for Human Resources | | 0.2 | |
| Total weig | hted score for Human Resources | 0.156 | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 3.5 | | |
|--|--|--------|
| Criterion $ Yes = 1 $ | | No = 0 |
| 2. NON-TECHNICAL ASSESSMENT | | |

| 2D: Financial Systems | | | |
|--|--|-----|--|
| sw | Which financial systems are in place? | 1 | |
| Systems | Are there sufficient funds for operation, maintenance and overtime? | 1 | |
| Einancial Sharing in Place | Do the size of the plants (small versus large) influence the allocation of funds? | 1 | |
| Financial Sharing i | Does the WSA's budgeting system work in relation to emergency funds, scheduled upgrading/extensions, unscheduled rehabilitation/upgrading? | 1 | |
| Information Sharing in Place | Are there communication channels and transparency between the financial section and the water care section? | 1 | |
| S u | Are regular meetings held? Who attends / chairs these meetings? | 1 | |
| matic | Are decisions taken at consensus / majority? | 1 | |
| Informa in Place | Are reports freely available? | 1 | |
| | Is the procurement system transparent? | 1 | |
| nt | Is the procurement system open to all? | 1 | |
| Procurement System | Is the water sector involved in the adjudication of tenders? | 1 | |
| Maximum p | ossible score for Financial Systems | 11 | |
| Total score attained for Financial Systems | | 11 | |
| Weight for Financial Systems | | 0.1 | |
| Total weighted score for Financial Systems | | 0.1 | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 3.6 | | | | |
|--|--|---|--|--|
| Criterion | Criterion $ Yes = 1 $ | | | |
| 2. NO | N-TECHNICAL ASSESSMENT | | | |
| 2E: Con | 2E: Communication Systems | | | |
| | Are there sufficient internal communication channels in place, including the needs and shortcomings? | 1 | | |
| Are these communication channels effective? | | 1 | | |
| Internal | Is the communication between supervisors and process controllers good or | 1 | | |

| | poor? | |
|-----------|---|-----|
| | Is there any interaction between the maintenance team and the rest of personnel in the water treatment plant? | 1 |
| | Is the communication between management and lower level process controllers good or poor? | 1 |
| | Are there sufficient communication channels with other Municipalities and/or Departments? | 1 |
| mal | Are there sufficient communication channels with consumers? | 1 |
| External | Are these external communication channels effective, good or poor? | 1 |
| Maximu | m possible score for Communication Systems | 8 |
| Total sco | re attained for Communication Systems | 8 |
| Weight f | or Communication Systems | 0.2 |
| Total we | ighted score for Communication Systems | 0.2 |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tab | le 3.7 | |
|----------------|---|--------|--------|
| Criterion | | Yes =1 | No = 0 |
| 2. NO | N-TECHNICAL ASSESSMENT | | |
| 2F: Aud | lit of safety, health and environmental quality | | |
| | Are there water and safety management procedures for normal operation, incidents and emergency situations? | 1 | |
| | Is there any safety plan at water treatment plants including the safety of process controllers on duties? | 1 | |
| ş | Are there emergency plans in place for chlorine leaks? | 1 | |
| Safety Matters | Are there hazardous chemicals and ablution facilities, appropriate fire extinguishers location? | 1 | |
| Safe | Are safety meetings held regularly and who attends such meetings? | 1 | |
| cts | Are there representatives for health and safety of consumers? If yes, are they effective? | 1 | |
| Health Aspects | Are there control measures that identify risks and ensure that health based-targets are met in terms of providing safe drinking water to all consumers? | 1 | |
| Heal | Are there emergency measures in place for water quality health impact? | 1 | |
| m en tal | Are process controllers satisfied with their working environment? | 1 | |

| | Is the working environment appropriate for improving or accelerating the service delivery? | 1 | |
|-------------------------------|--|------|---|
| | Is there any strategic plan to improve the quality of the working environment? | 1 | |
| Maximun | Maximum possible score for SHEQ | | |
| Total score attained for SHEQ | | 11 | |
| Weight for SHEQ | | 0.15 | 1 |
| Total weighted score for SHEQ | | 0.15 | İ |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 3.8 | | | |
|--|---|--------|--------|
| Criterion | | Yes =1 | No = 0 |
| 2. NO | N-TECHNICAL ASSESSMENT | | l |
| 2G: Con | nmunity involvement and awareness | | |
| | Are there protocols involved communities in decision-making? | | 0 |
| Community Involvement | Is there an effective reporting system for communities to assist in more rapid response to any water quality incident? | 1 | |
| Com | Is there a Consumer Service to which non-compliance can be reported? | 1 | |
| ness | Is there a mechanism system to receive and actively address community complaints in a timely fashion? | 1 | |
| Community Awareness | Are there procedures for promptly advising of any significant incidents within the drinking water supply including notification of the public health authority? | 1 | |
| Commu | Is there any water quality information system available to consumers through annual reports and in the internet? | 1 | |
| Maximum possible score for Community Involvement | | 6 | 1 |
| Total sco | re attained for Community Involvement | 5 | |
| Weight fo | or Community Involvement | 0.05 | 5 |
| Total wei | ghted score for Community Involvement | 0.04 | 2 |

TABLE 3.9

NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING:

Total Weighted Scoring for Mutshedzi package plant $\underline{94.7~\%}$

| | Compliance Criterion | Weighted Score |
|------|--|----------------|
| 2. | NON-TECHNICAL ASSESSMENT | |
| 2A: | Management Issues | 0.1 |
| 2B: | Management Practices | 0.2 |
| 2C: | Human Resources | 0.156 |
| 2D: | Financial Systems | 0.1 |
| 2E: | Communication Systems | 0.2 |
| 2F: | Safety, Health and Environmental Quality | 0.15 |
| 2G: | Community Involvement and Awareness | 0.042 |
| TOTA | L WEIGHTED SCORE | 0.947 |

| TABLE 3.10 | | | |
|---|--|--|--|
| NON-TECHNICAL (MANAGEMENT) COMPLIANCE RATING: | | | |
| Total Weighted Score | Rating Description | | |
| 0 – 50 | Class 3 Compliance: Total non-compliance; serious and immediate intervention required (TAC) | | |
| 50 – 90 | Class 2 Compliance: Serious challenges requiring attention and improvement | | |
| 90 – 100 | Class 1 Compliance: Acceptable compliance | | |

MUTALE REGIONAL WATER TREATMENT PLANT

| | TABLE 4.1 | | |
|-----|---|--------|--|
| | NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING | | |
| | Criterion | Weight | |
| | 2. NON-TECHNICAL ASSESSMENT | | |
| 2A: | Management Issues | 0.1 | |

| 2B: | Management Practices | 0.2 |
|-------|--|------|
| 2C: | Human Resources | 0.2 |
| 2D: | Financial Systems | 0.1 |
| 2E: | Communication Systems | 0.2 |
| 2F: | Safety, Health and Environmental Quality | 0.15 |
| 2G: | Community Involvement and Awareness | 0.05 |
| TOTAL | | 1.0 |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 4.2 | | | |
|--|--|--------|--------|
| Criterion | | Yes =1 | No = 0 |
| 2. NON-TE | CHNICAL ASSESSMENT | | |
| 2A: Managemo | ent Issues | | |
| | Does a strategic plan for the assessment of drinking water supply systems exist? | 1 | |
| | Are there preventive strategic plans for drinking water quality management? | 1 | |
| | Is there a strategic plan for recruitment of personnel per water treatment plant available? | 1 | |
| su | Is there a strategic plan for operational monitoring and verification of drinking water system? | 1 | |
| Assessment of strategic plans | Is there a strategic plan for sharing and clarifying roles and responsibilities among all personnel involved in the production of safe drinking water quality? | 1 | |
| nent of s | Does a strategic plan for training and development of water plant personnel, and for community involvement and awareness exist? | 1 | |
| Assessn | Is there any funding strategic plan for implementation of drinking water quality management programmes? | 1 | |
| nent lans | Does a tactical plan for handling emergencies including communication of such emergencies to communities exist? | 1 | |
| Assessment of tact plans | Is the overall periodic overseeing of water care function performed? | 1 | |
| As of | Is there maintenance and asset management plans? | 1 | |
| Assess ment of operatio nal plans | Is the attendance of process controllers (and in particular shift workers) at the treatment plant monitored? Is there a clock–in-system for the attendance? | 1 | |

| | Is the superintendent available to operators on a day-to-day basis? | 1 | |
|--|--|-----|--|
| | Is there a substitute system plan put in place when one of the operators is ill or away attending a course? | 1 | |
| | Are the supervisors and process controllers aware of their job requirements? Are job descriptions available? | 1 | |
| Maximum possible score for Management Issues | | 14 | |
| Total score att | ained for Management Issues | 14 | |
| Weight for Ma | anagement Issues | 0.1 | |
| Total weighte | d score for Management Issues | 0.1 | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 4.3 | | | |
|---|--------|--------|--|
| Criterion | Yes =1 | No = 0 | |
| 2. NON-TECHNICAL ASSESSMENT | | L | |
| 2B: Management Practices | | | |
| Do the WSPs use existing local (Emanti/DWAF) or international management practices? Are they implementing them in their water treatment plants? | 1 | | |
| Are the WPSs able to understand the existing local or international practices and implementing them correctly? | 1 | | |
| When local or international practices are not available, are the WSPs able to draw their own criteria? | 1 | | |
| Maximum possible score for Management Practices | 3 | | |
| Total score attained for Management Practices | | | |
| Weight for Management Practices | | 0.2 | |
| Total weighted score for Management Practices | | | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 4.4 | | |
|--|----------|-----------|
| Criterion | Yes =1 | No = 0 |
| 2. NON-TECHNICAL ASSESSMENT | ! | |
| 2C: Human Resources | | |

| Ħ | Is the number of personnel related to the size of the plant? | | 0 |
|------------------------------------|---|---|---|
| Personnel at the plant | Are the needs of process controllers/supervisors and shift workers per plants adequate? | | 0 |
| nnel | Are there specific guidelines/rules for shift workers and their deployment? | 1 | |
| Persc | How many operators are there in total? How many shift workers? | 1 | |
| ion | How many operators with qualifications in the DWAF categories? | 1 | |
| Qualification s of Personnel | Are personnel being correctly applied according to their qualifications? | 1 | |
| Qua s Pers | Are there guidelines or formal rules for upgrading of qualifications? | 1 | |
| | Are there in service training programmes and policies? What is the in-service training policy of the WSA? | 1 | |
| | Do process controllers / supervisors / managers know what training opportunities and courses are available? | 1 | |
| | Are they sent on courses regularly? | | 0 |
| Training Needs | Are there specific criteria or formal rules to be qualified for training? | | 0 |
| ning] | Are there specific promotion requirement protocols in place? | 1 | |
| Trai | Are there career advancement opportunities? | 1 | |
| s It | Is the plant classified by DWAF? | | 0 |
| Plant | Has it been done according to the new classification system? | | 0 |
| | Are the responsibilities of process controllers, supervisors and plant managers in line with their salary? | | 0 |
| | What system is used for overtime management and payment? | 1 | |
| | What is the WSA policy on conflict management (internal and external)? | 1 | |
| | Is any medical assistance available for on the job injuries? | 1 | |
| | Can all workers participate in medical schemes? | 1 | |
| | Are the retirement/pension-aid benefits, the housing and travel allowance benefits available? | 1 | |
| ditions | Are the leave benefits (vacation /study/ sick), and the bonus scheme available? | 1 | |
| | Are there any other incentives? | 1 | |
| ig Con | Are plant personnel satisfied with their working environment? | 1 | |
| Working Conditions | Are the relationships between supervisors and their subordinates good or poor? | 1 | |
| | | | |

| | Is there any performance indicators? | 1 |
|--|--------------------------------------|-------|
| Maximum possible score for Human Resources | | 26 |
| Total score attained for Human Resources | | 19 |
| Weight for | Human Resources | 0.2 |
| Total weig | hted score for Human Resources | 0.146 |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 4.5 | | | |
|--|--|--------|--------|
| Criterion | | Yes =1 | No = 0 |
| 2. NON | N-TECHNICAL ASSESSMENT | | |
| 2D: Fina | ncial Systems | | |
| sms | Which financial systems are in place? | 1 | |
| Systems | Are there sufficient funds for operation, maintenance and overtime? | 1 | |
| Financial Sharing in Place | Do the size of the plants (small versus large) influence the allocation of funds? | 1 | |
| Financial Sharing i | Does the WSA's budgeting system work in relation to emergency funds, scheduled upgrading/extensions, unscheduled rehabilitation/upgrading? | 1 | |
| Sharing | Are there communication channels and transparency between the financial section and the water care section? | 1 | |
| | Are regular meetings held? Who attends / chairs these meetings? | 1 | |
| Information in Place | Are decisions taken at consensus / majority? | 1 | |
| Informa in Place | Are reports freely available? | 1 | |
| | Is the procurement system transparent? | 1 | |
| nt | Is the procurement system open to all? | 1 | |
| Procurement System | Is the water sector involved in the adjudication of tenders? | 1 | |
| Maximum | possible score for Financial Systems | 11 | |
| Total scor | e attained for Financial Systems | 11 | |
| Weight for Financial Systems | | | |

| Total weighted score for Financial Systems |
|--|
|--|

0.1

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 4.6 | | | |
|--|---|--------|--------|
| Criterio | 1 | Yes =1 | No = 0 |
| 2. NC | ON-TECHNICAL ASSESSMENT | | |
| 2E: Co | mmunication Systems | | |
| | Are there sufficient internal communication channels in place, including the needs and shortcomings? | 1 | |
| | Are these communication channels effective? | 1 | |
| | Is the communication between supervisors and process controllers good or poor? | 1 | |
| 1 | Is there any interaction between the maintenance team and the rest of personnel in the water treatment plant? | 1 | |
| Internal | Is the communication between management and lower level process controllers good or poor? | 1 | |
| | Are there sufficient communication channels with other Municipalities and/or Departments? | 1 | |
| rnal | Are there sufficient communication channels with consumers? | 1 | |
| External | Are these external communication channels effective, good or poor? | 1 | |
| Maximu | m possible score for Communication Systems | 8 | 1 |
| Total sco | ore attained for Communication Systems | 8 | |
| Weight | for Communication Systems | 0.2 | |
| Total we | righted score for Communication Systems | 0.2 | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 4.7 | | | |
|--|--------|--------|--|
| Criterion | Yes =1 | No = 0 | |
| 2. NON-TECHNICAL ASSESSMENT | | | |
| 2F: Audit of safety, health and environmental quality | | | |
| Are there water and safety management procedures for normal operation, incidents and emergency situations? | 1 | | |

| | Is there any safety plan at water treatment plants including the safety of process controllers on duties? | 1 |
|---------------------------------|---|------|
| | Are there emergency plans in place for chlorine leaks? | 1 |
| | Are there hazardous chemicals and ablution facilities, appropriate fire extinguishers location? | 1 |
| | Are safety meetings held regularly and who attends such meetings? | 1 |
| cts | Are there representatives for health and safety of consumers? If yes, are they effective? | 1 |
| Health Aspects | Are there control measures that identify risks and ensure that health based-targets are met in terms of providing safe drinking water to all consumers? | 1 |
| Hea | Are there emergency measures in place for water quality health impact? | 1 |
| | Are process controllers satisfied with their working environment? | 1 |
| Environmental Quality | Is the working environment appropriate for improving or accelerating the service delivery? | 1 |
| Environ Quality | Is there any strategic plan to improve the quality of the working environment? | 1 |
| Maximum possible score for SHEQ | | 11 |
| Total score attained for SHEQ | | 11 |
| Weight for SHEQ | | 0.15 |
| Total weighted score for SHEQ | | 0.15 |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tab | le 4.8 | |
|----------------------------|--|--------|--------|
| Criterion | | Yes =1 | No = 0 |
| 2. NO | N-TECHNICAL ASSESSMENT | | |
| 2G: Con | nmunity involvement and awareness | | |
| | Are there protocols involved communities in decision-making? | | 0 |
| Community Involvement | Is there an effective reporting system for communities to assist in more rapid response to any water quality incident? | | 0 |
| Com | Is there a Consumer Service to which non-compliance can be reported? | 1 | |
| Communit y Awareness | Is there a mechanism system to receive and actively address community complaints in a timely fashion? | 1 | |
| Com y Awa | Are there procedures for promptly advising of any significant incidents within the drinking water supply including notification of the public health | 1 | |

| authority? | | |
|--|-------|--|
| Is there any water quality information system available to consume through annual reports and in the internet? | rs 1 | |
| Maximum possible score for Community Involvement | 6 | |
| Total score attained for Community Involvement | 4 | |
| Weight for Community Involvement | 0.05 | |
| Total weighted score for Community Involvement | 0.033 | |

TABLE 4.90 NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING: Total Weighted Scoring for Mutale Regional water treatment plant $\underline{92.9~\%}$ Weighted Score **Compliance Criterion** NON-TECHNICAL ASSESSMENT 2A: **Management Issues** 0.1 2B: **Management Practices** 0.2 **Human Resources** 2C: 0.146 2D: Financial Systems 0.1 2E: **Communication Systems** 0.2 Safety, Health and Environmental Quality 2F: 0.15 **Community Involvement and Awareness** 0.033 2G: TOTAL WEIGHTED SCORE

| TABLE 4.10 | | | | |
|---|--|--|--|--|
| NON-TECHNICAL (MANAGEMENT) COMPLIANCE RATING: | | | | |
| Total Weighted Score Rating Description | | | | |
| 0 – 50 | Class 3 Compliance: Total non-compliance; serious and immediate intervention required (TAC) | | | |
| 50 – 90 | Class 2 Compliance: Serious challenges requiring attention and improvement | | | |
| 90 – 100 | Class 1 Compliance: | | | |

0.929

| Acceptable compliance |
|-----------------------|
| |

TSHEDZA PACKAGE PLANT

| | TABLE 5.1 | | | | |
|------|---|--------|--|--|--|
| | NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING | | | | |
| | Criterion | Weight | | | |
| | 2. NON-TECHNICAL ASSESSMENT | - | | | |
| 2A: | Management Issues | 0.1 | | | |
| 2B: | Management Practices | 0.2 | | | |
| 2C: | Human Resources | 0.2 | | | |
| 2D: | Financial Systems | 0.1 | | | |
| 2E: | Communication Systems | 0.2 | | | |
| 2F: | Safety, Health and Environmental Quality | 0.15 | | | |
| 2G: | Community Involvement and Awareness | 0.05 | | | |
| TOTA | L | 1.0 | | | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 5.2 | | | | |
|-------------------------------|--|-----------|--------|--|--|
| Criterion | | Yes =1 | No = 0 | | |
| 2. NO | N-TECHNICAL ASSESSMENT | | | | |
| 2A: Mana | ngement Issues | | | | |
| | Does a strategic plan for the assessment of drinking water supply systems exist? | 1 | | | |
| plans | Are there preventive strategic plans for drinking water quality management? | 1 | | | |
| trategic] | Is there a strategic plan for recruitment of personnel per water treatment plant available? | 1 | | | |
| Assessment of strategic plans | Is there a strategic plan for operational monitoring and verification of drinking water system? | 1 | | | |
| Assessi | Is there a strategic plan for sharing and clarifying roles and responsibilities among all personnel involved in the production of safe drinking water quality? | 1 | | | |

| | Does a strategic plan for training and development of water plant personnel, and for community involvement and awareness exist? | 1 | |
|---------------------------------|---|---|----|
| | Is there any funding strategic plan for implementation of drinking water quality management programmes? | 1 | |
| Assessment of tact plans | Does a tactical plan for handling emergencies including communication of such emergencies to communities exist? | 1 | |
| sessment tact plans | Is the overall periodic overseeing of water care function performed? | 1 | |
| Ass | Is there maintenance and asset management plans? | | 0 |
| Assessment of operational plans | Is the attendance of process controllers (and in particular shift workers) at the treatment plant monitored? Is there a clock–in-system for the attendance? | 1 | |
| perati | Is the superintendent available to operators on a day-to-day basis? | 1 | |
| nent of o | Is there a substitute system plan put in place when one of the operators is ill or away attending a course? | 1 | |
| Assessn | Are the supervisors and process controllers aware of their job requirements? Are job descriptions available? | 1 | |
| Maximu | m possible score for Management Issues | 1 | 4 |
| Total sco | re attained for Management Issues | 1 | 13 |
| Weight f | or Management Issues | 0 | .1 |
| Total we | ighted score for Management Issues | | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 5.3 | | | |
|---|--------|--------|--|
| Criterion | Yes =1 | No = 0 | |
| 2. NON-TECHNICAL ASSESSMENT | | I | |
| 2B: Management Practices | | | |
| Do the WSPs use existing local (Emanti/DWAF) or international management practices? Are they implementing them in their water treatment plants? | 1 | | |
| Are the WPSs able to understand the existing local or international practices and implementing them correctly? | 1 | | |
| When local or international practices are not available, are the WSPs able to draw their own criteria? | 1 | | |
| Maximum possible score for Management Practices | 3 | • | |

| Total score attained for Management Practices | 3 |
|---|-----|
| Weight for Management Practices | 0.2 |
| Total weighted score for Management Practices | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table | 5.4 | |
|---------------------------------|---|-----------|--------|
| Criterion | | Yes =1 | No = 0 |
| 2. NON | -TECHNICAL ASSESSMENT | | |
| 2C: Huma | an Resources | | |
| ant | Is the number of personnel related to the size of the plant? | | 0 |
| Personnel at the plant | Are the needs of process controllers/supervisors and shift workers per plants adequate? | | 0 |
| onnel | Are there specific guidelines/rules for shift workers and their deployment? | | 0 |
| Person | How many operators are there in total? How many shift workers? | 1 | |
| ion | How many operators with qualifications in the DWAF categories? | 1 | |
| Qualification s Personnel | Are personnel being correctly applied according to their qualifications? | 1 | |
| Qual s Persc | Are there guidelines or formal rules for upgrading of qualifications? | 1 | |
| | Are there in service training programmes and policies? What is the in-service training policy of the WSA? | 1 | |
| | Do process controllers / supervisors / managers know what training opportunities and courses are available? | 1 | |
| | Are they sent on courses regularly? | 1 | |
| Veeds | Are there specific criteria or formal rules to be qualified for training? | 1 | |
| Training Needs | Are there specific promotion requirement protocols in place? | 1 | |
| Trair | Are there career advancement opportunities? | 1 | |
| | Is the plant classified by DWAF? | | 0 |
| Plant | Has it been done according to the new classification system? | | 0 |
| αņ | Are the responsibilities of process controllers, supervisors and plant managers in line with their salary? | | 0 |
| Working Conditions | What system is used for overtime management and payment? | 1 | |
| Working Condition | What is the WSA policy on conflict management (internal and external)? | 1 | |

| Is | s any medical assistance available for on the job injuries? | 1 | |
|----------------------------|---|---|-----|
| С | Can all workers participate in medical schemes? | 1 | |
| II I | Are the retirement/pension-aid benefits, the housing and travel allowance benefits available? | 1 | |
| | Are the leave benefits (vacation /study/ sick), and the bonus scheme vailable? | 1 | |
| A | Are there any other incentives? | 1 | |
| A | Are plant personnel satisfied with their working environment? | 1 | |
| | Are the relationships between supervisors and their subordinates good or poor? | 1 | |
| Is | s there any performance indicators? | 1 | |
| Maximum po | ossible score for Human Resources | | 27 |
| Total score at | tained for Human Resources | | 21 |
| Weight for Human Resources | | (|).2 |
| Total weighte | ed score for Human Resources | | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 5.5 | | | | |
|-------------------------------|--|--------|--------|--|--|
| Criterion | | Yes =1 | No = 0 | | |
| 2. NO | N-TECHNICAL ASSESSMENT | | | | |
| 2D: Fina | ncial Systems | | | | |
| sma | Which financial systems are in place? | 1 | | | |
| Systems | Are there sufficient funds for operation, maintenance and overtime? | 1 | | | |
| Financial Sharing in Place | Do the size of the plants (small versus large) influence the allocation of funds? | 1 | | | |
| | Does the WSA's budgeting system work in relation to emergency funds, scheduled upgrading/extensions, unscheduled rehabilitation/upgrading? | 1 | | | |
| Sharing | Are there communication channels and transparency between the financial section and the water care section? | 1 | | | |
| tion | Are regular meetings held? Who attends / chairs these meetings? | 1 | | | |
| | Are decisions taken at consensus / majority? | 1 | | | |
| Informa in Place | Are reports freely available? | 1 | | | |
| m en t | Is the procurement system transparent? | 1 | | | |

| | Is the procurement system open to all? | 1 | | |
|--|--|----|----|--|
| | Is the water sector involved in the adjudication of tenders? | 1 | | |
| Maximur | Maximum possible score for Financial Systems | | 11 | |
| Total score attained for Financial Systems | | 11 | | |
| Weight for Financial Systems | | 0. | 1 | |
| Total weighted score for Financial Systems | | | | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tab | le 5.6 | |
|---|---|--|
| 1 | Yes =1 | No = 0 |
| N-TECHNICAL ASSESSMENT | | |
| nmunication Systems | | |
| Are there sufficient internal communication channels in place, including the needs and shortcomings? | 1 | |
| Are these communication channels effective? | 1 | |
| Is the communication between supervisors and process controllers good or poor? | 1 | |
| Is there any interaction between the maintenance team and the rest of personnel in the water treatment plant? | 1 | |
| Is the communication between management and lower level process controllers good or poor? | 1 | |
| Are there sufficient communication channels with other Municipalities and/or Departments? | 1 | |
| Are there sufficient communication channels with consumers? | 1 | |
| Are these external communication channels effective, good or poor? | 1 | |
| m possible score for Communication Systems | 8 | |
| re attained for Communication Systems | 8 | |
| ight for Communication Systems 0.2 | | 2 |
| ighted score for Communication Systems | | |
| | N-TECHNICAL ASSESSMENT Immunication Systems Are there sufficient internal communication channels in place, including the needs and shortcomings? Are these communication channels effective? Is the communication between supervisors and process controllers good or poor? Is there any interaction between the maintenance team and the rest of personnel in the water treatment plant? Is the communication between management and lower level process controllers good or poor? Are there sufficient communication channels with other Municipalities and/or Departments? Are there sufficient communication channels with consumers? Are these external communication channels effective, good or poor? In possible score for Communication Systems The attained for Communication Systems The attained for Communication Systems The Communication Systems The Communication Systems The Area of Communication Systems The attained for Communication Systems The Area of | N-TECHNICAL ASSESSMENT Inmunication Systems Are there sufficient internal communication channels in place, including the needs and shortcomings? Are these communication channels effective? Is the communication between supervisors and process controllers good or poor? Is there any interaction between the maintenance team and the rest of personnel in the water treatment plant? Is the communication between management and lower level process controllers good or poor? Are there sufficient communication channels with other Municipalities and/or Departments? Are there sufficient communication channels with consumers? I Are these external communication channels effective, good or poor? In mossible score for Communication Systems The attained for Communication Systems |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tab | le 5.7 | | |
|--------------------------|---|--------|--------|--|
| Criterion | | Yes =1 | No = 0 | |
| 2. NO | N-TECHNICAL ASSESSMENT | | | |
| 2F: Auc | lit of safety, health and environmental quality | | | |
| | Are there water and safety management procedures for normal operation, incidents and emergency situations? | 1 | | |
| | Is there any safety plan at water treatment plants including the safety of process controllers on duties? | 1 | | |
| S | Are there emergency plans in place for chlorine leaks? | 1 | | |
| Safety Matters | Are there hazardous chemicals and ablution facilities, appropriate fire extinguishers location? | 1 | | |
| Safet | Are safety meetings held regularly and who attends such meetings? | 1 | | |
| sp | Are there representatives for health and safety of consumers? If yes, are they effective? | 1 | | |
| Health Aspects | Are there control measures that identify risks and ensure that health based-targets are met in terms of providing safe drinking water to all consumers? | 1 | | |
| Heal | Are there emergency measures in place for water quality health impact? | 1 | | |
| | Are process controllers satisfied with their working environment? | 1 | | |
| mental | Is the working environment appropriate for improving or accelerating the service delivery? | 1 | | |
| Environmental Quality | Is there any strategic plan to improve the quality of the working environment? | 1 | | |
| Maximu | n possible score for SHEQ | 11 | | |
| Total sco | re attained for SHEQ | 11 | | |
| Weight fo | Weight for SHEQ | | 0.15 | |
| Total we | ighted score for SHEQ | | | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORIN | G: Table 5.8 | |
|--|--------------|--------|
| Criterion | Yes =1 | No = 0 |
| 2. NON-TECHNICAL ASSESSMENT | | • |
| 2G: Community involvement and awareness | | |

| | Are there protocols involved communities in decision-making? | | 0 |
|--------------------------|---|------|---|
| Community Involvement | Is there an effective reporting system for communities to assist in more rapid response to any water quality incident? | | 0 |
| Com | Is there a Consumer Service to which non-compliance can be reported? | 1 | |
| suess | Is there a mechanism system to receive and actively address community complaints in a timely fashion? | 1 | |
| Community Awareness | Are there procedures for promptly advising of any significant incidents within the drinking water supply including notification of the public health authority? | 1 | |
| Сотт | Is there any water quality information system available to consumers through annual reports and in the internet? | 1 | |
| Maximu | n possible score for Community Involvement | 6 | |
| Total sco | re attained for Community Involvement | 4 | |
| Weight fo | or Community Involvement | 0.05 | |
| Total wei | ighted score for Community Involvement | | |

| | TABLE 5.9 | |
|------|---|------------------|
| | NON-TECHNICAL (MANAGEMENT) COMPLIANC | E SCORING: |
| | Total Weighted Scoring for Tshedza Package plan | nt <u>93.1 %</u> |
| | Compliance Criterion | Weighted Score |
| 2. | NON-TECHNICAL ASSESSMENT | · |
| 2A: | Management Issues | 0.0928 |
| 2B: | Management Practices | 0.2 |
| 2C: | Human Resources | 0.155 |
| 2D: | Financial Systems | 0.1 |
| 2E: | Communication Systems | 0.2 |
| 2F: | Safety, Health and Environmental Quality | 0.15 |
| 2G: | Community Involvement and Awareness | 0.033 |
| TOTA | L WEIGHTED SCORE | 0.931 |

| TABLE 5.10 |
|---|
| NON-TECHNICAL (MANAGEMENT) COMPLIANCE RATING: |

| Total Weighted Score | Rating Description |
|----------------------|--|
| 0 – 50 | Class 3 Compliance: Total non-compliance; serious and immediate intervention required (TAC) |
| 50 – 90 | Class 2 Compliance: Serious challenges requiring attention and improvement |
| 90 – 100 | Class 1 Compliance: Acceptable compliance |

DZINGAHE PACKAGE PLANT

19 August 2009

| | TABLE 6.1 | | |
|-------|---|--------|--|
| | NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING | | |
| | Criterion | Weight | |
| | 2. NON-TECHNICAL ASSESSMENT | | |
| 2A: | Management Issues | 0.1 | |
| 2B: | Management Practices | 0.2 | |
| 2C: | Human Resources | 0.2 | |
| 2D: | Financial Systems | 0.1 | |
| 2E: | Communication Systems | 0.2 | |
| 2F: | Safety, Health and Environmental Quality | 0.15 | |
| 2G: | Community Involvement and Awareness | 0.05 | |
| TOTAL | | 1.0 | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 6.2 | | | |
|---|--------|--------|--|
| Criterion | Yes =1 | No = 0 | |
| 2. NON-TECHNICAL ASSESSMENT | | | |
| 2A: Management Issues | | | |
| Does a strategic plan for the assessment of drinking water supply systems | 1 | | |

| exist? | | |
|--|--|---|
| CAIST: | | |
| Are there preventive strategic plans for drinking water quality management? | 1 | |
| Is there a strategic plan for recruitment of personnel per water treatment plant available? | 1 | |
| Is there a strategic plan for operational monitoring and verification of drinking water system? | 1 | |
| Is there a strategic plan for sharing and clarifying roles and responsibilities among all personnel involved in the production of safe drinking water quality? | 1 | |
| Does a strategic plan for training and development of water plant personnel, and for community involvement and awareness exist? | 1 | |
| Is there any funding strategic plan for implementation of drinking water quality management programmes? | 1 | |
| Does a tactical plan for handling emergencies including communication of such emergencies to communities exist? | 1 | |
| Is the overall periodic overseeing of water care function performed? | 1 | |
| Is there maintenance and asset management plans? | | 0 |
| Is the attendance of process controllers (and in particular shift workers) at the treatment plant monitored? Is there a clock—in-system for the attendance? | 1 | |
| Is the superintendent available to operators on a day-to-day basis? | 1 | |
| Is there a substitute system plan put in place when one of the operators is ill or away attending a course? | 1 | |
| Are the supervisors and process controllers aware of their job requirements? Are job descriptions available? | 1 | |
| n possible score for Management Issues | | 14 |
| re attained for Management Issues | | 13 |
| or Management Issues | | 0.1 |
| ghted score for Management Issues | 0 | .0929 |
| | Is there a strategic plan for recruitment of personnel per water treatment plant available? Is there a strategic plan for operational monitoring and verification of drinking water system? Is there a strategic plan for sharing and clarifying roles and responsibilities among all personnel involved in the production of safe drinking water quality? Does a strategic plan for training and development of water plant personnel, and for community involvement and awareness exist? Is there any funding strategic plan for implementation of drinking water quality management programmes? Does a tactical plan for handling emergencies including communication of such emergencies to communities exist? Is the overall periodic overseeing of water care function performed? Is there maintenance and asset management plans? Is the attendance of process controllers (and in particular shift workers) at the treatment plant monitored? Is there a clock-in-system for the attendance? Is the superintendent available to operators on a day-to-day basis? Is there a substitute system plan put in place when one of the operators is ill or away attending a course? Are the supervisors and process controllers aware of their job requirements? | Is there a strategic plan for recruitment of personnel per water treatment plant available? Is there a strategic plan for operational monitoring and verification of drinking water system? Is there a strategic plan for sharing and clarifying roles and responsibilities among all personnel involved in the production of safe drinking water quality? Does a strategic plan for training and development of water plant personnel, and for community involvement and awareness exist? Is there any funding strategic plan for implementation of drinking water quality management programmes? Does a tactical plan for handling emergencies including communication of such emergencies to communities exist? Is the overall periodic overseeing of water care function performed? Is there maintenance and asset management plans? Is the attendance of process controllers (and in particular shift workers) at the treatment plant monitored? Is there a clock-in-system for the attendance? Is there a substitute system plan put in place when one of the operators is ill or away attending a course? Are the supervisors and process controllers aware of their job requirements? Are job descriptions available? The possible score for Management Issues The Management Issues The Management Issues |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 6.3 | | | |
|------|---|--------|--------|--|
| Crit | erion | Yes =1 | No = 0 | |
| 2. | NON-TECHNICAL ASSESSMENT | | | |
| 2B: | 2B: Management Practices | | | |
| | Do the WSPs use existing local (Emanti/DWAF) or international management practices? Are they implementing them in their water | 1 | | |

| treatment plants? | |
|--|-----|
| Are the WPSs able to understand the existing local or international practices and implementing them correctly? | 3 1 |
| When local or international practices are not available, are the WSPs able to draw their own criteria? | 1 |
| Maximum possible score for Management Practices | 3 |
| Total score attained for Management Practices | 3 |
| Weight for Management Practices | 0.2 |
| Total weighted score for Management Practices | 0.2 |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 6.4 | | |
|---|--|---|
| on | Yes =1 | N o = 0 |
| ON-TECHNICAL ASSESSMENT | | |
| uman Resources | | |
| Is the number of personnel related to the size of the plant? | | 0 |
| Are the needs of process controllers/supervisors and shift workers per plants adequate? | | 0 |
| Are there specific guidelines/rules for shift workers and their deployment? | 1 | |
| How many operators are there in total? How many shift workers? | 1 | |
| How many operators with qualifications in the DWAF categories? | 1 | |
| Are personnel being correctly applied according to their qualifications? | 1 | |
| Are there guidelines or formal rules for upgrading of qualifications? | 1 | |
| Are there in service training programmes and policies? What is the in-service training policy of the WSA? | 1 | |
| Do process controllers / supervisors / managers know what training opportunities and courses are available? | 1 | |
| Are they sent on courses regularly? | 1 | |
| Are there specific criteria or formal rules to be qualified for training? | 1 | |
| Are there specific promotion requirement protocols in place? | 1 | |
| | ON-TECHNICAL ASSESSMENT uman Resources Is the number of personnel related to the size of the plant? Are the needs of process controllers/supervisors and shift workers per plants adequate? Are there specific guidelines/rules for shift workers and their deployment? How many operators are there in total? How many shift workers? How many operators with qualifications in the DWAF categories? Are personnel being correctly applied according to their qualifications? Are there guidelines or formal rules for upgrading of qualifications? Are there in service training programmes and policies? What is the in-service training policy of the WSA? Do process controllers / supervisors / managers know what training opportunities and courses are available? Are they sent on courses regularly? Are there specific criteria or formal rules to be qualified for training? | ON-TECHNICAL ASSESSMENT Tuman Resources Is the number of personnel related to the size of the plant? Are the needs of process controllers/supervisors and shift workers per plants adequate? Are there specific guidelines/rules for shift workers and their deployment? How many operators are there in total? How many shift workers? 1 How many operators with qualifications in the DWAF categories? 1 Are personnel being correctly applied according to their qualifications? 1 Are there guidelines or formal rules for upgrading of qualifications? 1 Are there in service training programmes and policies? What is the in-service training policy of the WSA? Do process controllers / supervisors / managers know what training opportunities and courses are available? Are they sent on courses regularly? 1 Are there specific criteria or formal rules to be qualified for training? 1 |

| Are there career advancement opportunities? | 1 | |
|--|---|---|
| Is the plant classified by DWAF? | | 0 |
| Has it been done according to the new classification system? | | 0 |
| Are the responsibilities of process controllers, supervisors and plant managers in line with their salary? | | 0 |
| What system is used for overtime management and payment? | 1 | |
| What is the WSA policy on conflict management (internal and external)? | 1 | |
| Is any medical assistance available for on the job injuries? | 1 | |
| Can all workers participate in medical schemes? | 1 | |
| Are the retirement/pension-aid benefits, the housing and travel allowance benefits available? | 1 | |
| Are the leave benefits (vacation /study/ sick), and the bonus scheme available? | 1 | |
| Are there any other incentives? | 1 | |
| Are plant personnel satisfied with their working environment? | 1 | |
| Are the relationships between supervisors and their subordinates good or poor? | 1 | |
| Is there any performance indicators? | 1 | |
| um possible score for Human Resources | 27 | |
| core attained for Human Resources | 22 | |
| for Human Resources | 0.2 | |
| reighted score for Human Resources | 0.16 | 3 |
| | Is the plant classified by DWAF? Has it been done according to the new classification system? Are the responsibilities of process controllers, supervisors and plant managers in line with their salary? What system is used for overtime management and payment? What is the WSA policy on conflict management (internal and external)? Is any medical assistance available for on the job injuries? Can all workers participate in medical schemes? Are the retirement/pension-aid benefits, the housing and travel allowance benefits available? Are the leave benefits (vacation /study/ sick), and the bonus scheme available? Are there any other incentives? Are plant personnel satisfied with their working environment? Are the relationships between supervisors and their subordinates good or poor? | Is the plant classified by DWAF? Has it been done according to the new classification system? Are the responsibilities of process controllers, supervisors and plant managers in line with their salary? What system is used for overtime management and payment? I What is the WSA policy on conflict management (internal and external)? Is any medical assistance available for on the job injuries? I Can all workers participate in medical schemes? Are the retirement/pension-aid benefits, the housing and travel allowance benefits available? Are the leave benefits (vacation /study/ sick), and the bonus scheme available? Are there any other incentives? Are plant personnel satisfied with their working environment? Are the relationships between supervisors and their subordinates good or poor? I Is there any performance indicators? 1 um possible score for Human Resources 27 core attained for Human Resources 26 core attained for Human Resources 10 20 20 20 20 20 20 20 20 20 20 20 20 20 |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 6.5 | | | |
|----------------------------------|---|--------|--------|--|
| Criterion | | Yes =1 | No = 0 | |
| 2. NON | -TECHNICAL ASSESSMENT | | | |
| 2D: Finan | cial Systems | | | |
| sme | Which financial systems are in place? | 1 | | |
| Systems | Are there sufficient funds for operation, maintenance and overtime? | | 0 | |
| Financial Sy Sharing in Place | Do the size of the plants (small versus large) influence the allocation of funds? | 1 | | |
| Fina Sha | Does the WSA's budgeting system work in relation to emergency funds, | 1 | | |

| | scheduled upgrading/extensions, unscheduled rehabilitation/upgrading? | | |
|--|---|-----|---|
| Sharing | Are there communication channels and transparency between the financial section and the water care section? | 1 | |
| | Are regular meetings held? Who attends / chairs these meetings? | 1 | |
| Information in Place | Are decisions taken at consensus / majority? | 1 | |
| Informa in Place | Are reports freely available? | 1 | |
| | Is the procurement system transparent? | 1 | |
| ent | Is the procurement system open to all? | 1 | |
| Procurement System | Is the water sector involved in the adjudication of tenders? | 1 | |
| Maximum | Maximum possible score for Financial Systems | | |
| Total score attained for Financial Systems | | 10 | |
| Weight for Financial Systems | | 0.1 | |
| Total weig | Total weighted score for Financial Systems | | L |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 6.6 | | | |
|----------|---|--------|--------|--|
| Criterio | 1 | Yes =1 | No = 0 | |
| 2. NC | ON-TECHNICAL ASSESSMENT | | l | |
| 2E: Co | mmunication Systems | | | |
| | Are there sufficient internal communication channels in place, including the needs and shortcomings? | 1 | | |
| | Are these communication channels effective? | 1 | | |
| | Is the communication between supervisors and process controllers good or poor? | 1 | | |
| _ | Is there any interaction between the maintenance team and the rest of personnel in the water treatment plant? | 1 | | |
| Internal | Is the communication between management and lower level process controllers good or poor? | 1 | | |
| Exter | Are there sufficient communication channels with other Municipalities and/or Departments? | 1 | | |

| | Are there sufficient communication channels with consumers? | 1 | |
|--|--|-----|---|
| | Are these external communication channels effective, good or poor? | 1 | |
| Maximu | n possible score for Communication Systems | 8 | |
| Total score attained for Communication Systems | | 8 | |
| Weight for Communication Systems | | 0.2 | |
| Total we | Total weighted score for Communication Systems | | 2 |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tabl | le 6.7 | |
|---------------------------------|---|--------|--------|
| Criterion | | Yes =1 | No = 0 |
| 2. NO | N-TECHNICAL ASSESSMENT | | |
| 2F: Auc | lit of safety, health and environmental quality | | |
| | Are there water and safety management procedures for normal operation, incidents and emergency situations? | 1 | |
| | Is there any safety plan at water treatment plants including the safety of process controllers on duties? | | 0 |
| ş | Are there emergency plans in place for chlorine leaks? | 1 | |
| Safety Matters | Are there hazardous chemicals and ablution facilities, appropriate fire extinguishers location? | 1 | |
| Safe | Are safety meetings held regularly and who attends such meetings? | 1 | |
| ats | Are there representatives for health and safety of consumers? If yes, are they effective? | | 0 |
| Health Aspects | Are there control measures that identify risks and ensure that health based-targets are met in terms of providing safe drinking water to all consumers? | 1 | |
| Heal | Are there emergency measures in place for water quality health impact? | 1 | |
| | Are process controllers satisfied with their working environment? | 1 | |
| ımental | Is the working environment appropriate for improving or accelerating the service delivery? | 1 | |
| Environmental Quality | Is there any strategic plan to improve the quality of the working environment? | 1 | |
| Maximum possible score for SHEQ | | 11 | |
| Total score attained for SHEQ | | 9 | |
| Weight for SHEQ | | 0.15 | |

| Total weighted score for SHEQ | 0.123 |
|-------------------------------|-------|
| | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 6.8 | | | |
|--|---|------|---|
| Criterion | Criterion | | |
| 2. NO | N-TECHNICAL ASSESSMENT | | |
| 2G: Con | nmunity involvement and awareness | | |
| | Are there protocols involved communities in decision-making? | | 0 |
| Community Involvement | Is there an effective reporting system for communities to assist in more rapid response to any water quality incident? | | 0 |
| Com | Is there a Consumer Service to which non-compliance can be reported? | | 0 |
| ness | Is there a mechanism system to receive and actively address community complaints in a timely fashion? | 1 | |
| Community Awareness | Are there procedures for promptly advising of any significant incidents within the drinking water supply including notification of the public health authority? | 1 | |
| Commu | Is there any water quality information system available to consumers through annual reports and in the internet? | 1 | |
| Maximum possible score for Community Involvement | | 6 | |
| Total score attained for Community Involvement | | 3 | |
| Weight for Community Involvement | | 0.05 | |
| Total weighted score for Community Involvement | | 0.25 | |

| | TABLE 6.9 | | |
|--|--|----------------|--|
| | NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING: | | |
| Total Weighted Scoring for Dzingahe Package plant 89.5 % | | | |
| | Compliance Criterion | Weighted Score | |
| 2. | NON-TECHNICAL ASSESSMENT | | |
| 2A: | Management Issues | 0.093 | |
| 2B: | Management Practices | 0.2 | |
| 2C: | Human Resources | 0.163 | |
| 2D: | Financial Systems | 0.091 | |

| 2E: | Communication Systems | 0.2 |
|----------------------|--|-------|
| 2F: | Safety, Health and Environmental Quality | 0.123 |
| 2G: | Community Involvement and Awareness | 0.025 |
| TOTAL WEIGHTED SCORE | | 0.895 |

| TABLE 6.10 | | |
|---|--|--|
| NON-TECHNICAL (MANAGEMENT) COMPLIANCE RATING: | | |
| Total Weighted Score Rating Description | | |
| 0 – 50 | Class 3 Compliance: Total non-compliance; serious and immediate intervention required (TAC) | |
| 50 – 90 | Class 2 Compliance: Serious challenges requiring attention and improvement | |
| 90 – 100 | Class 1 Compliance: Acceptable compliance | |

MALAMULELE TREATMENT WATER PLANT

10 May 2011

| | TABLE 7.1 | | |
|-----|---|--------|--|
| | NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING | | |
| | Criterion | Weight | |
| | 2. NON-TECHNICAL ASSESSMENT | | |
| 2A: | Management Issues | 0.1 | |
| 2B: | Management Practices | 0.2 | |
| 2C: | Human Resources | 0.2 | |
| 2D: | Financial Systems | 0.1 | |
| 2E: | Communication Systems | 0.2 | |
| 2F: | Safety, Health and Environmental Quality | 0.15 | |
| 2G: | Community Involvement and Awareness | 0.05 | |

| TOTAL | 1.0 |
|-------|-----|
| | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tab | le 7.2 | |
|-------------------------------|--|--------|--------|
| Criterior | 1 | Yes =1 | No = 0 |
| 2. NO | N-TECHNICAL ASSESSMENT | l | |
| 2A: Man | agement Issues | | |
| | Does a strategic plan for the assessment of drinking water supply systems exist? | 1 | |
| | Are there preventive strategic plans for drinking water quality management? | 1 | |
| | Is there a strategic plan for recruitment of personnel per water treatment plant available? | 1 | |
| SI | Is there a strategic plan for operational monitoring and verification of drinking water system? | 1 | |
| Assessment of strategic plans | Is there a strategic plan for sharing and clarifying roles and responsibilities among all personnel involved in the production of safe drinking water quality? | 1 | |
| | Does a strategic plan for training and development of water plant personnel, and for community involvement and awareness exist? | 1 | |
| | Is there any funding strategic plan for implementation of drinking water quality management programmes? | 1 | |
| nt of | Does a tactical plan for handling emergencies including communication of such emergencies to communities exist? | 1 | |
| Assessment of tact plans | Is the overall periodic overseeing of water care function performed? | 1 | |
| Ass ta | Is there maintenance and asset management plans? | 1 | |
| tional | Is the attendance of process controllers (and in particular shift workers) at the treatment plant monitored? Is there a clock–in-system for the attendance? | 1 | |
| operat s | Is the superintendent available to operators on a day-to-day basis? | 1 | |
| Assessment of operation plans | Is there a substitute system plan put in place when one of the operators is ill or away attending a course? | 1 | |
| | Are the supervisors and process controllers aware of their job requirements? Are job descriptions available? | 1 | |
| Maximu | m possible score for Management Issues | | 14 |
| Total sco | ore attained for Management Issues | | 14 |
| Weight f | for Management Issues | (| 0.1 |

| Total weighted score for Management Issues | 0.1 |
|--|-----|
| | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 7.3 | | | | |
|---|--------|--------|--|--|
| Criterion | Yes =1 | No = 0 | | |
| 2. NON-TECHNICAL ASSESSMENT | | | | |
| 2B: Management Practices | | | | |
| Do the WSPs use existing local (Emanti/DWAF) or international management practices? Are they implementing them in their water treatment plants? | 1 | | | |
| Are the WPSs able to understand the existing local or international practices and implementing them correctly? | 1 | | | |
| When local or international practices are not available, are the WSPs able to draw their own criteria? | 1 | | | |
| Maximum possible score for Management Practices | | | | |
| Total score attained for Management Practices | | | | |
| Weight for Management Practices | | 2 | | |
| Total weighted score for Management Practices | | 0.2 | | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 7.4 | | |
|---------------------------------|--|----|-----|
| Criterion | Yes =1 | No | = 0 |
| 2. NON | -TECHNICAL ASSESSMENT | | |
| 2C: Huma | nn Resources | | |
| ant | Is the number of personnel related to the size of the plant? | | 0 |
| Personnel at the plant | Are the needs of process controllers/supervisors and shift workers per plant adequate? | 5 | 0 |
| onnel | Are there specific guidelines/rules for shift workers and their deployment? | 1 | |
| Pers | How many operators are there in total? How many shift workers? | 1 | |
| ion of | How many operators with qualifications in the DWAF categories? | 1 | |
| Qualification s Personnel | Are personnel being correctly applied according to their qualifications? | 1 | |
| Qua s Pers | Are there guidelines or formal rules for upgrading of qualifications? | 1 | |

| | | | T |
|--------------------|---|----|-----|
| | Are there in service training programmes and policies? What is the in-service training policy of the WSA? | 1 | |
| | Do process controllers / supervisors / managers know what training opportunities and courses are available? | 1 | |
| | Are they sent on courses regularly? | 1 | |
| Training Needs | Are there specific criteria or formal rules to be qualified for training? | 1 | |
| ning D | Are there specific promotion requirement protocols in place? | 1 | |
| Traiı | Are there career advancement opportunities? | 1 | |
| . t | Is the plant classified by DWAF? | 1 | |
| Plant class | Has it been done according to the new classification system? | 1 | |
| | Are the responsibilities of process controllers, supervisors and plant managers in line with their salary? | | 0 |
| | What system is used for overtime management and payment? | 1 | |
| | What is the WSA policy on conflict management (internal and external)? | 1 | |
| | Is any medical assistance available for on the job injuries? | 1 | |
| | Can all workers participate in medical schemes? | 1 | |
| | Are the retirement/pension-aid benefits, the housing and travel allowance benefits available? | 1 | |
| | Are the leave benefits (vacation /study/ sick), and the bonus scheme available? | 1 | |
| tions | Are there any other incentives? | 1 | |
| Working Conditions | Are plant personnel satisfied with their working environment? | 1 | |
| cing C | Are the relationships between supervisors and their subordinates good or poor? | 1 | |
| Work | Is there any performance indicators? | 1 | |
| Maximum | possible score for Human Resources | 2 | 27 |
| Total score | attained for Human Resources | 2 | 24 |
| Weight for | Human Resources | (| 0.2 |
| Total weig | hted score for Human Resources | 0. | 178 |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 7.5 | | |
|--|--------|-------|
| Criterion | Yes =1 | No =0 |
| 2. NON-TECHNICAL ASSESSMENT | | • |

| 2D: Financial Systems | | |
|--|--|-----|
| ii . | Which financial systems are in place? | 1 |
| Sharing | Are there sufficient funds for operation, maintenance and overtime? | 1 |
| Systems | Do the size of the plants (small versus large) influence the allocation of funds? | 1 |
| Financial Systems Sharing in Place | Does the WSA's budgeting system work in relation to emergency funds, scheduled upgrading/extensions, unscheduled rehabilitation/upgrading? | 1 |
| Information Sharing in Place | Are there communication channels and transparency between the financial section and the water care section? | 1 |
| S uo | Are regular meetings held? Who attends / chairs these meetings? | 1 |
| matic | Are decisions taken at consensus / majority? | 1 |
| Informa in Place | Are reports freely available? | 1 |
| | Is the procurement system transparent? | 1 |
| r t | Is the procurement system open to all? | 1 |
| Procurement System | Is the water sector involved in the adjudication of tenders? | 1 |
| Maximum possible score for Financial Systems | | 11 |
| Total score attained for Financial Systems | | 11 |
| Weight for Financial Systems | | 0.1 |
| Total weighted score for Financial Systems | | 0.1 |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tab | le 7.6 | |
|-----------|--|--------|-------|
| Criterion | | Yes =1 | No =0 |
| 2. NO | 2. NON-TECHNICAL ASSESSMENT | | |
| 2E: Con | nmunication Systems | | |
| nal | Are there sufficient internal communication channels in place, including the needs and shortcomings? | 1 | |
| Internal | Are these communication channels effective? | 1 | |

| | Is the communication between supervisors and process controllers good or poor? | 1 |
|--|---|-----|
| | Is there any interaction between the maintenance team and the rest of personnel in the water treatment plant? | 1 |
| | Is the communication between management and lower level process controllers good or poor? | 1 |
| | Are there sufficient communication channels with other Municipalities and/or Departments? | 1 |
| mal | Are there sufficient communication channels with consumers? | 1 |
| External | Are these external communication channels effective, good or poor? | 1 |
| Maximuı | Maximum possible score for Communication Systems | |
| Total sco | Total score attained for Communication Systems | |
| Weight for Communication Systems | | 0.2 |
| Total weighted score for Communication Systems | | 0.2 |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 7.7 | | | |
|----------------|---|--------|-------|--|
| Criterion | | Yes =1 | No =0 | |
| 2. NO | N-TECHNICAL ASSESSMENT | | | |
| 2F: Aud | lit of safety, health and environmental quality | | | |
| | Are there water and safety management procedures for normal operation, incidents and emergency situations? | 1 | | |
| | Is there any safety plan at water treatment plants including the safety of process controllers on duties? | 1 | | |
| S. | Are there emergency plans in place for chlorine leaks? | 1 | | |
| Safety Matters | Are there hazardous chemicals and ablution facilities, appropriate fire extinguishers location? | 1 | | |
| Safe | Are safety meetings held regularly and who attends such meetings? | 1 | | |
| cts | Are there representatives for health and safety of consumers? If yes, are they effective? | 1 | | |
| Health Aspects | Are there control measures that identify risks and ensure that health based-targets are met in terms of providing safe drinking water to all consumers? | 1 | | |
| Heal | Are there emergency measures in place for water quality health impact? | 1 | | |
| e en | Are process controllers satisfied with their working environment? | 1 | | |

| | Is the working environment appropriate for improving or accelerating the service delivery? | 1 | |
|---------------------------------|--|------|--|
| | Is there any strategic plan to improve the quality of the working environment? | 1 | |
| Maximum possible score for SHEQ | | 11 | |
| Total score attained for SHEQ | | 11 | |
| Weight for SHEQ | | 0.15 | |
| Total weighted score for SHEQ | | 0.15 | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tab | le 7.8 | |
|---|--|---|
| | Yes =1 | No =0 |
| N-TECHNICAL ASSESSMENT | | |
| nmunity involvement and awareness | | |
| Are there protocols involved communities in decision-making? | | 0 |
| Is there an effective reporting system for communities to assist in more rapid response to any water quality incident? | 1 | |
| Is there a Consumer Service to which non-compliance can be reported? | 1 | |
| Is there a mechanism system to receive and actively address community complaints in a timely fashion? | 1 | |
| Are there procedures for promptly advising of any significant incidents within the drinking water supply including notification of the public health authority? | 1 | |
| Is there any water quality information system available to consumers through annual reports and in the internet? | 1 | |
| m possible score for Community Involvement | 6 | j |
| re attained for Community Involvement | 5 | j |
| or Community Involvement | 0.0 |)5 |
| ighted score for Community Involvement | 0.0 | 42 |
| | N-TECHNICAL ASSESSMENT Inmunity involvement and awareness Are there protocols involved communities in decision-making? Is there an effective reporting system for communities to assist in more rapid response to any water quality incident? Is there a Consumer Service to which non-compliance can be reported? Is there a mechanism system to receive and actively address community complaints in a timely fashion? Are there procedures for promptly advising of any significant incidents within the drinking water supply including notification of the public health authority? Is there any water quality information system available to consumers | N-TECHNICAL ASSESSMENT Are there protocols involved communities in decision-making? Is there an effective reporting system for communities to assist in more rapid response to any water quality incident? Is there a Consumer Service to which non-compliance can be reported? Is there a mechanism system to receive and actively address community complaints in a timely fashion? Are there procedures for promptly advising of any significant incidents within the drinking water supply including notification of the public health authority? Is there any water quality information system available to consumers through annual reports and in the internet? In possible score for Community Involvement The attained for Community Involvement To Community Involvement Output Description: |

| TABLE 7.9 | |
|--|--|
| NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING: | |
| Total Weighted Scoring for Malamulele treatment water plant 97.0 % | |
| Compliance Criterion Weighted Score | |

| 2. | NON-TECHNICAL ASSESSMENT | |
|------|--|-------|
| 2A: | Management Issues | 0.1 |
| 2B: | Management Practices | 0.2 |
| 2C: | Human Resources | 0.178 |
| 2D: | Financial Systems | 0.1 |
| 2E: | Communication Systems | 0.2 |
| 2F: | Safety, Health and Environmental Quality | 0.15 |
| 2G: | Community Involvement and Awareness | 0.042 |
| TOTA | TOTAL WEIGHTED SCORE 0.97 | |

| TABLE 7.10 | | | |
|---|--|--|--|
| NON-TECHNICAL (MANAGEMENT) COMPLIANCE RATING: | | | |
| Total Weighted Score Rating Description | | | |
| 0 – 50 | Class 3 Compliance: Total non-compliance; serious and immediate intervention required (TAC) | | |
| 50 – 90 | Class 2 Compliance: Serious challenges requiring attention and improvement | | |
| 90 – 100 | Class 1 Compliance: Acceptable compliance | | |

VONDO TREATMENT PLANT

13 May 2011

| | TABLE 8.1 | | |
|-----|---|--------|--|
| | NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING | | |
| | Criterion | Weight | |
| | 2. NON-TECHNICAL ASSESSMENT | | |
| 2A: | Management Issues | 0.1 | |
| 2B: | Management Practices | 0.2 | |

| 2C: | Human Resources | 0.2 |
|-------|--|------|
| 2D: | Financial Systems | 0.1 |
| 2E: | Communication Systems | 0.2 |
| 2F: | Safety, Health and Environmental Quality | 0.15 |
| 2G: | Community Involvement and Awareness | 0.05 |
| TOTAL | | 1.0 |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 8.2 | | |
|----------------------------------|--|--------|----------|
| Criterion | | Yes =1 | No =0 |
| 2. NO | N-TECHNICAL ASSESSMENT | | 1 |
| 2A: Mana | ngement Issues | | |
| | Does a strategic plan for the assessment of drinking water supply systems exist? | 1 | |
| | Are there preventive strategic plans for drinking water quality management? | 1 | |
| | Is there a strategic plan for recruitment of personnel per water treatment plant available? | 1 | |
| olans | Is there a strategic plan for operational monitoring and verification of drinking water system? | 1 | |
| Assessment of strategic plans | Is there a strategic plan for sharing and clarifying roles and responsibilities among all personnel involved in the production of safe drinking water quality? | 1 | |
| nent of s | Does a strategic plan for training and development of water plant personnel, and for community involvement and awareness exist? | 1 | |
| Assessn | Is there any funding strategic plan for implementation of drinking water quality management programmes? | 1 | |
| Assessment of tact plans | Does a tactical plan for handling emergencies including communication of such emergencies to communities exist? | 1 | |
| sessment tact plans | Is the overall periodic overseeing of water care function performed? | 1 | |
| Ass | Is there maintenance and asset management plans? | 1 | |
| t of clans | Is the attendance of process controllers (and in particular shift workers) at the treatment plant monitored? Is there a clock–in-system for the attendance? | 1 | |
| Assessment of perational plan | Is the superintendent available to operators on a day-to-day basis? | 1 | |
| Assessment of operational plans | Is there a substitute system plan put in place when one of the operators is ill or away attending a course? | 1 | |

| | Are the supervisors and process controllers aware of their job requirements? Are job descriptions available? | 1 | |
|-----------|--|-----|--|
| Maximu | n possible score for Management Issues | 14 | |
| Total sco | re attained for Management Issues | 14 | |
| Weight fo | or Management Issues | 0.1 | |
| Total wei | ighted score for Management Issues | 0.1 | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 8.3 | | | |
|-------|---|--------|-------|--|
| Crite | rion | Yes =1 | No =0 | |
| 2. | NON-TECHNICAL ASSESSMENT | | | |
| 2B: | Management Practices | | | |
| | Do the WSPs use existing local (Emanti/DWAF) or international management practices? Are they implementing them in their water treatment plants? | 1 | | |
| | Are the WPSs able to understand the existing local or international practices and implementing them correctly? | 1 | | |
| | When local or international practices are not available, are the WSPs able to draw their own criteria? | 1 | | |
| Maxi | mum possible score for Management Practices | 3 | | |
| Total | Total score attained for Management Practices 3 | | | |
| Weig | Weight for Management Practices 0.2 | | | |
| Total | Total weighted score for Management Practices 0.2 | | | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 8.4 | | | |
|--|---|-----------|-------|
| Criterion | | Yes =1 | No =0 |
| 2. NON | -TECHNICAL ASSESSMENT | l | |
| 2C: Hum | an Resources | | |
| the | Is the number of personnel related to the size of the plant? | | 0 |
| Personnel at plant | Are the needs of process controllers/supervisors and shift workers per plants adequate? | | 0 |
| Persor | Are there specific guidelines/rules for shift workers and their deployment? | 1 | |

| | How many operators are there in total? How many shift workers? | 1 |
|------------------------------------|---|-------|
| of | How many operators with qualifications in the DWAF categories? | 1 |
| Qualification s of Personnel | Are personnel being correctly applied according to their qualifications? | 1 |
| Qual s Persc | Are there guidelines or formal rules for upgrading of qualifications? | 1 |
| | Are there in service training programmes and policies? What is the in-service training policy of the WSA? | 1 |
| | Do process controllers / supervisors / managers know what training opportunities and courses are available? | 1 |
| | Are they sent on courses regularly? | 1 |
| Veeds | Are there specific criteria or formal rules to be qualified for training? | 1 |
| Training Needs | Are there specific promotion requirement protocols in place? | 1 |
| Trair | Are there career advancement opportunities? | 1 |
| | Is the plant classified by DWAF? | 1 |
| Plant | Has it been done according to the new classification system? | 1 |
| | Are the responsibilities of process controllers, supervisors and plant managers in line with their salary? | 1 |
| | What system is used for overtime management and payment? | 1 |
| | What is the WSA policy on conflict management (internal and external)? | 1 |
| | Is any medical assistance available for on the job injuries? | 1 |
| | Can all workers participate in medical schemes? | 1 |
| | Are the retirement/pension-aid benefits, the housing and travel allowance benefits available? | 1 |
| | Are the leave benefits (vacation /study/ sick), and the bonus scheme available? | 1 |
| St | Are there any other incentives? | 1 |
| dition | Are plant personnel satisfied with their working environment? | 1 |
| Working Conditions | Are the relationships between supervisors and their subordinates good or poor? | 1 |
| Work | Is there any performance indicators? | 1 |
| Maximum | possible score for Human Resources | 27 |
| Total score | attained for Human Resources | 25 |
| Weight for Human Resources 0.2 | | 0.2 |
| Total weig | hted score for Human Resources | 0.185 |
| | | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 8.5 | | | |
|--|--|--------|--------|--|
| Criterion | | Yes =1 | No = 0 | |
| 2. NO | N-TECHNICAL ASSESSMENT | | | |
| 2D: Fina | ancial Systems | | | |
| sw | Which financial systems are in place? | 1 | | |
| Systems | Are there sufficient funds for operation, maintenance and overtime? | 1 | | |
| n Place | Do the size of the plants (small versus large) influence the allocation of funds? | 1 | | |
| Financial Sharing i | Does the WSA's budgeting system work in relation to emergency funds, scheduled upgrading/extensions, unscheduled rehabilitation/upgrading? | 1 | | |
| Sharing | Are there communication channels and transparency between the financial section and the water care section? | 1 | | |
| | Are regular meetings held? Who attends / chairs these meetings? | 1 | | |
| Information in Place | Are decisions taken at consensus / majority? | 1 | | |
| Informa in Place | Are reports freely available? | 1 | | |
| | Is the procurement system transparent? | 1 | | |
| ut Ut | Is the procurement system open to all? | 1 | | |
| Procurement System | Is the water sector involved in the adjudication of tenders? | 1 | | |
| | n possible score for Financial Systems | 11 | | |
| Total sco | re attained for Financial Systems | 11 | | |
| Weight fo | or Financial Systems | 0.1 | | |
| Total wei | Total weighted score for Financial Systems 0.1 | | | |
| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 8.6 | | | | |
| Criterion | | Yes =1 | No = 0 | |
| 2. NO | N-TECHNICAL ASSESSMENT | ı | 1 | |
| 2E: Con | nmunication Systems | | | |
| | | | | |

| | Are there sufficient internal communication channels in place, including the needs and shortcomings? | 1 |
|----------------------------------|---|-----|
| | Are these communication channels effective? | 1 |
| | Is the communication between supervisors and process controllers good or poor? | 1 |
| | Is there any interaction between the maintenance team and the rest of personnel in the water treatment plant? | 1 |
| Internal | Is the communication between management and lower level process controllers good or poor? | 1 |
| | Are there sufficient communication channels with other Municipalities and/or Departments? | 1 |
| rnal | Are there sufficient communication channels with consumers? | 1 |
| External | Are these external communication channels effective, good or poor? | 1 |
| Maximur | n possible score for Communication Systems | 8 |
| Total sco | re attained for Communication Systems | 8 |
| Weight for Communication Systems | | 0.2 |
| Total wei | ghted score for Communication Systems | 0.2 |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tab | le 8.7 | |
|-------------------|---|--------|-------|
| Criterion | | Yes =1 | No =0 |
| 2. NON-T | TECHNICAL ASSESSMENT | | |
| 2F: Audit o | of safety, health and environmental quality | | |
| | Are there water and safety management procedures for normal operation, incidents and emergency situations? | 1 | |
| | Is there any safety plan at water treatment plants including the safety of process controllers on duties? | 1 | |
| ys. | Are there emergency plans in place for chlorine leaks? | 1 | |
| Safety Matters | Are there hazardous chemicals and ablution facilities, appropriate fire extinguishers location? | 1 | |
| Safe | Are safety meetings held regularly and who attends such meetings? | 1 | |
| th | Are there representatives for health and safety of consumers? If yes, are they effective? | 1 | |
| Health Aspects | Are there control measures that identify risks and ensure that health based- targets are met in terms of providing safe drinking water to all | 1 | |

| | consumers? | | |
|-------------------------------|--|-------|---|
| | Are there emergency measures in place for water quality health impact? | 1 | |
| | Are process controllers satisfied with their working environment? | 1 | |
| Environmental Quality | Is the working environment appropriate for improving or accelerating the service delivery? | 1 | |
| Environ Quality | Is there any strategic plan to improve the quality of the working environment? | | 0 |
| Maximum p | ossible score for SHEQ | 11 | |
| Total score a | ttained for SHEQ | 10 | |
| Weight for SHEQ | | 0.15 | |
| Total weighted score for SHEQ | | 0.136 | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tab | le 8.8 | |
|--------------------------|---|--------|-------|
| Criterion | | Yes =1 | No =0 |
| 2. NO | N-TECHNICAL ASSESSMENT | | 1 |
| 2G: Cor | nmunity involvement and awareness | | |
| | Are there protocols involved communities in decision-making? | 1 | |
| Community Involvement | Is there an effective reporting system for communities to assist in more rapid response to any water quality incident? | 1 | |
| Com Invo | Is there a Consumer Service to which non-compliance can be reported? | 1 | |
| ness | Is there a mechanism system to receive and actively address community complaints in a timely fashion? | 1 | |
| Community Awareness | Are there procedures for promptly advising of any significant incidents within the drinking water supply including notification of the public health authority? | 1 | |
| Commu | Is there any water quality information system available to consumers through annual reports and in the internet? | 1 | |
| Maximuı | m possible score for Community Involvement | 6 | • |
| Total sco | re attained for Community Involvement | 6 | |
| Weight f | or Community Involvement | 0.0 | 5 |
| Total we | ighted score for Community Involvement | 0.0 | 5 |

TABLE 8.9

NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING:

Total Weighted Scoring for Vondo treatment plant $\underline{97.1\,\%}$

| | Compliance Criterion | Weighted Score |
|------|--|----------------|
| 2. | NON-TECHNICAL ASSESSMENT | |
| 2A: | Management Issues | 0.1 |
| 2B: | Management Practices | 0.2 |
| 2C: | Human Resources | 0.185 |
| 2D: | Financial Systems | 0.1 |
| 2E: | Communication Systems | 0.2 |
| 2F: | Safety, Health and Environmental Quality | 0.136 |
| 2G: | Community Involvement and Awareness | 0.05 |
| TOTA | L WEIGHTED SCORE | 97.1 |

| TABLE 8.10 | | |
|---|---|--|
| NON-TECHNICAL (MANAGEMENT) COMPLIANCE RATING: | | |
| Total Weighted Score Rating Description | | |
| | Class 3 Compliance: | |
| 0 – 50 | Total non-compliance; serious and immediate intervention required (TAC) | |
| | Class 2 Compliance: | |
| 50 – 90 | Serious challenges requiring attention and improvement | |
| 00 100 | Class 1 Compliance: | |
| 90 – 100 | Acceptable compliance | |

MUTSHEDZI PLANT

12 May 2011

| TABLE 9.1 |
|---|
| NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING |

| | Criterion | Weight |
|-------|--|--------|
| | 2. NON-TECHNICAL ASSESSMENT | • |
| 2A: | Management Issues | 0.1 |
| 2B: | Management Practices | 0.2 |
| 2C: | Human Resources | 0.2 |
| 2D: | Financial Systems | 0.1 |
| 2E: | Communication Systems | 0.2 |
| 2F: | Safety, Health and Environmental Quality | 0.15 |
| 2G: | Community Involvement and Awareness | 0.05 |
| TOTAL | | 1.0 |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 9.2 | | | | |
|--|--|----------|---|--|
| Criterion | Criterion Yes =1 | | | |
| 2. NON- | TECHNICAL ASSESSMENT | | | |
| 2A: Manage | ement Issues | | | |
| | Does a strategic plan for the assessment of drinking water supply systems ex | xist? | 1 | |
| | Are there preventive strategic plans for drinking water quality management | ? | 1 | |
| | Is there a strategic plan for recruitment of personnel per water treatment available? | nt plant | 1 | |
| olans | Is there a strategic plan for operational monitoring and verification of cowater system? | lrinking | 1 | |
| Assessment of strategic plans | Is there a strategic plan for sharing and clarifying roles and responsibilities all personnel involved in the production of safe drinking water quality? | among | 1 | |
| nent of s | Does a strategic plan for training and development of water plant person for community involvement and awareness exist? | nel, and | 1 | |
| Assessi | Is there any funding strategic plan for implementation of drinking water management programmes? | quality | 1 | |
| f tact s | Does a tactical plan for handling emergencies including communication emergencies to communities exist? | of such | 1 | |
| Assm of tact plans | Is the overall periodic overseeing of water care function performed? | | 1 | |
| As | Is there maintenance and asset management plans? | | 1 | |

| tional | Is the attendance of process controllers (and in particular shift workers) at the treatment plant monitored? Is there a clock–in-system for the attendance? | 1 | |
|--|---|-----|---|
| opera | Is the superintendent available to operators on a day-to-day basis? | 1 | |
| ssessment of operational plans | Is there a substitute system plan put in place when one of the operators is ill or away attending a course? | 1 | |
| Assess | Are the supervisors and process controllers aware of their job requirements? Are job descriptions available? | 1 | |
| Maximum possible score for Management Issues | | 14 | |
| Total score attained for Management Issues | | 14 | ļ |
| Weight for Management Issues | | 0.1 | 1 |
| Total weigh | ted score for Management Issues | 0.1 | 1 |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 9.3 | | | | |
|---|--------|-------|--|--|
| Criterion | Yes =1 | No =0 | | |
| 2. NON-TECHNICAL ASSESSMENT | | | | |
| 2B: Management Practices | | | | |
| Do the WSPs use existing local (Emanti/DWAF) or international management practices? Are they implementing them in their water treatment plants? | 1 | | | |
| Are the WPSs able to understand the existing local or international practices and implementing them correctly? | 1 | | | |
| When local or international practices are not available, are the WSPs able to draw their own criteria? | 1 | | | |
| Maximum possible score for Management Practices | 3 | | | |
| Total score attained for Management Practices | 3 | | | |
| Weight for Management Practices | 0.2 | | | |
| Total weighted score for Management Practices | 0.2 | | | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 9.4 | | |
|--|--|-----------|
| Criterion Yes = 1 | | No = 0 |
| 2. NON-TECHNICAL ASSESSMENT | | |

| 2C: Hum | an Resources | | |
|---------------------------------|---|---|---|
| ınt | Is the number of personnel related to the size of the plant? | | 0 |
| Personnel at the plant | Are the needs of process controllers/supervisors and shift workers per plants adequate? | | 0 |
| onnel a | Are there specific guidelines/rules for shift workers and their deployment? | 1 | |
| Perso | How many operators are there in total? How many shift workers? | 1 | |
| ion of | How many operators with qualifications in the DWAF categories? | 1 | |
| Qualification s Personnel | Are personnel being correctly applied according to their qualifications? | 1 | |
| Qual s Pers | Are there guidelines or formal rules for upgrading of qualifications? | 1 | |
| | Are there in service training programmes and policies? What is the in-service training policy of the WSA? | 1 | |
| | Do process controllers / supervisors / managers know what training opportunities and courses are available? | 1 | |
| | Are they sent on courses regularly? | 1 | |
| Veeds | Are there specific criteria or formal rules to be qualified for training? | 1 | |
| Training Needs | Are there specific promotion requirement protocols in place? | 1 | |
| Trair | Are there career advancement opportunities? | 1 | |
| | Is the plant classified by DWAF? | 1 | |
| Plant class | Has it been done according to the new classification system? | 1 | |
| | Are the responsibilities of process controllers, supervisors and plant managers in line with their salary? | 1 | |
| | What system is used for overtime management and payment? | 1 | |
| | What is the WSA policy on conflict management (internal and external)? | 1 | |
| | Is any medical assistance available for on the job injuries? | 1 | |
| | Can all workers participate in medical schemes? | 1 | |
| | Are the retirement/pension-aid benefits, the housing and travel allowance benefits available? | 1 | |
| | Are the leave benefits (vacation /study/ sick), and the bonus scheme available? | 1 | |
| ions | Are there any other incentives? | 1 | |
| ondit | Are plant personnel satisfied with their working environment? | 1 | |
| Working Conditions | Are the relationships between supervisors and their subordinates good or poor? | 1 | |
| Work | Is there any performance indicators? | 1 | |

| Maximum possible score for Human Resources | 27 |
|--|-------|
| Total score attained for Human Resources | 25 |
| Weight for Human Resources | 0.2 |
| Total weighted score for Human Resources | 0.185 |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tab | le 9.5 | |
|--|--|--------|--------|
| Criterio | 1 | Yes =1 | No = 0 |
| 2. NO | ON-TECHNICAL ASSESSMENT | | 1 |
| 2D: Fin | ancial Systems | | |
| sma | Which financial systems are in place? | 1 | |
| Systems | Are there sufficient funds for operation, maintenance and overtime? | 1 | |
| Financial Sharing in Place | Do the size of the plants (small versus large) influence the allocation of funds? | 1 | |
| Financial Sharing i | Does the WSA's budgeting system work in relation to emergency funds, scheduled upgrading/extensions, unscheduled rehabilitation/upgrading? | 1 | |
| Sharing | Are there communication channels and transparency between the financial section and the water care section? | 1 | |
| | Are regular meetings held? Who attends / chairs these meetings? | 1 | |
| Information in Place | Are decisions taken at consensus / majority? | 1 | |
| Informa in Place | Are reports freely available? | 1 | |
| | Is the procurement system transparent? | 1 | |
| ut ut | Is the procurement system open to all? | 1 | |
| Procurement System | Is the water sector involved in the adjudication of tenders? | 1 | |
| Maximum possible score for Financial Systems | | 11 | 1 |
| Total sco | ore attained for Financial Systems | 11 | |
| Weight for Financial Systems | | 0.1 | |
| Total we | righted score for Financial Systems | 0.1 | [|

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 9.6 | | | |
|--|---|--------|--------|
| Criterion | | Yes =1 | No = 0 |
| 2. NON- | TECHNICAL ASSESSMENT | | |
| 2E: Comm | nunication Systems | | |
| | Are there sufficient internal communication channels in place, including the needs and shortcomings? | 1 | |
| | Are these communication channels effective? | 1 | |
| | Is the communication between supervisors and process controllers good or poor? | 1 | |
| _ | Is there any interaction between the maintenance team and the rest of personnel in the water treatment plant? | 1 | |
| Internal | Is the communication between management and lower level process controllers good or poor? | 1 | |
| | Are there sufficient communication channels with other Municipalities and/or Departments? | 1 | |
| nal | Are there sufficient communication channels with consumers? | 1 | |
| External | Are these external communication channels effective, good or poor? | 1 | |
| Maximum p | possible score for Communication Systems | 8 | 1 |
| Total score | attained for Communication Systems | 8 | |
| Weight for | Communication Systems | 0.2 | |
| Total weigh | ted score for Communication Systems | 0.2 | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tab | le 9.7 | | | |
|----------------|--|--------|--------|--|--|
| Criterion | | Yes =1 | No = 0 | | |
| | | | | | |
| S | Are there water and safety management procedures for normal operation, incidents and emergency situations? | 1 | | | |
| Safety Matters | Is there any safety plan at water treatment plants including the safety of process controllers on duties? | 1 | | | |
| Safe | Are there emergency plans in place for chlorine leaks? | 1 | | | |

| | Are there hazardous chemicals and ablution facilities, appropriate fire extinguishers location? | 1 |
|---------------------------------|---|------|
| | Are safety meetings held regularly and who attends such meetings? | 1 |
| cts | Are there representatives for health and safety of consumers? If yes, are they effective? | 1 |
| Health Aspects | Are there control measures that identify risks and ensure that health based-targets are met in terms of providing safe drinking water to all consumers? | 1 |
| Heal | Are there emergency measures in place for water quality health impact? | 1 |
| | Are process controllers satisfied with their working environment? | 1 |
| Environmental Quality | Is the working environment appropriate for improving or accelerating the service delivery? | 1 |
| Environ Quality | Is there any strategic plan to improve the quality of the working environment? | 1 |
| Maximum possible score for SHEQ | | 11 |
| Total score attained for SHEQ | | 11 |
| Weight for SHEQ | | 0.15 |
| Total weighted score for SHEQ | | 0.15 |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 9.8 | | | |
|--|---|--------|--------|
| Criterion | | Yes =1 | No = 0 |
| 2. NO | N-TECHNICAL ASSESSMENT | | · |
| 2G: Con | nmunity involvement and awareness | | |
| | Are there protocols involved communities in decision-making? | | 0 |
| Community Involvement | Is there an effective reporting system for communities to assist in more rapid response to any water quality incident? | 1 | |
| Con | Is there a Consumer Service to which non-compliance can be reported? | 1 | |
| seese | Is there a mechanism system to receive and actively address community complaints in a timely fashion? | 1 | |
| Community Awareness | Are there procedures for promptly advising of any significant incidents within the drinking water supply including notification of the public health authority? | 1 | |
| | Is there any water quality information system available to consumers through annual reports and in the internet? | 1 | |

| Maximum possible score for Community Involvement | 6 |
|--|-------|
| Total score attained for Community Involvement | 5 |
| Weight for Community Involvement | 0.05 |
| Total weighted score for Community Involvement | 0.042 |

| | TABLE 9.9 | | | |
|------|---|----------------|--|--|
| | NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING: | | | |
| | Total Weighted Scoring for Mutshedzi package plant 97.7 % | | | |
| | Compliance Criterion | Weighted Score | | |
| 2. | NON-TECHNICAL ASSESSMENT | , | | |
| 2A: | Management Issues | 0.1 | | |
| 2B: | Management Practices | 0.2 | | |
| 2C: | Human Resources | 0.185 | | |
| 2D: | Financial Systems | 0.1 | | |
| 2E: | Communication Systems | 0.2 | | |
| 2F: | Safety, Health and Environmental Quality | 0.15 | | |
| 2G: | Community Involvement and Awareness | 0.042 | | |
| TOTA | L WEIGHTED SCORE | 97.7 | | |

| TABLE 9.10 NON-TECHNICAL (MANAGEMENT) COMPLIANCE RATING: | | |
|---|--|--|
| | | |
| 0 – 50 | Class 3 Compliance: Total non-compliance; serious and immediate intervention required (TAC) | |
| 50 – 90 | Class 2 Compliance: Serious challenges requiring attention and improvement | |
| 90 – 100 | Class 1 Compliance: Acceptable compliance | |

| | TABLE 10.1 | | |
|-------|---|--------|--|
| | NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING | | |
| | Criterion | Weight | |
| | 2. NON-TECHNICAL ASSESSMENT | | |
| 2A: | Management Issues | 0.1 | |
| 2B: | Management Practices | 0.2 | |
| 2C: | Human Resources | 0.2 | |
| 2D: | Financial Systems | 0.1 | |
| 2E: | Communication Systems | 0.2 | |
| 2F: | Safety, Health and Environmental Quality | 0.15 | |
| 2G: | Community Involvement and Awareness | 0.05 | |
| TOTAL | | 1.0 | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 10.2 | | | |
|---|--|--------|--------|
| Criterion | | Yes =1 | No = 0 |
| 2. NON-TE | CHNICAL ASSESSMENT | | 1 |
| 2A: Manageme | ent Issues | | |
| | Does a strategic plan for the assessment of drinking water supply systems exist? | 1 | |
| | Are there preventive strategic plans for drinking water quality management? | 1 | |
| su | Is there a strategic plan for recruitment of personnel per water treatment plant available? | 1 | |
| tegic pla | Is there a strategic plan for operational monitoring and verification of drinking water system? | 1 | |
| Assessment of strategic plans | Is there a strategic plan for sharing and clarifying roles and responsibilities among all personnel involved in the production of safe drinking water quality? | | |
| Assessi | Does a strategic plan for training and development of water plant personnel, and for community involvement and awareness exist? | 1 | |

| | Is there any funding strategic plan for implementation of drinking water quality management programmes? | 1 |
|--|---|-----|
| f tact | Does a tactical plan for handling emergencies including communication of such emergencies to communities exist? | 1 |
| Assm of tact plans | Is the overall periodic overseeing of water care function performed? | 1 |
| As | Is there maintenance and asset management plans? | 1 |
| rational | Is the attendance of process controllers (and in particular shift workers) at the treatment plant monitored? Is there a clock–in-system for the attendance? | 1 |
| f ope | Is the superintendent available to operators on a day-to-day basis? | 1 |
| Assessment of operational plans | Is there a substitute system plan put in place when one of the operators is ill or away attending a course? | 1 |
| Asse | Are the supervisors and process controllers aware of their job requirements? Are job descriptions available? | 1 |
| Maximum pos | sible score for Management Issues | 14 |
| Total score attained for Management Issues | | 14 |
| Weight for Management Issues | | 0.1 |
| Total weighted score for Management Issues | | 0.1 |

| Crit | erion | Yes =1 | No = | |
|------|---|--------|------|--|
| 2. | NON-TECHNICAL ASSESSMENT | | | |
| 2B: | Management Practices | | | |
| | Do the WSPs use existing local (Emanti/DWAF) or international management practices? Are they implementing them in their water treatment plants? | 1 | | |
| | Are the WPSs able to understand the existing local or international practices and implementing them correctly? | 1 | | |
| | When local or international practices are not available, are the WSPs able to draw their own criteria? | 1 | | |
| Max | Maximum possible score for Management Practices | | | |
| Tota | l score attained for Management Practices | 3 | | |
| Wei | ght for Management Practices | 0.2 | 2 | |

| Total weighted score for Management Practices | 0.2 |
|---|-----|
| | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table | 10.4 | |
|--------------------------------|---|--------|-----------|
| Criterion | | Yes =1 | No = 0 |
| 2. NON | -TECHNICAL ASSESSMENT | | |
| 2C: Hum | an Resources | | |
| ınt | Is the number of personnel related to the size of the plant? | | 0 |
| Personnel at the plant | Are the needs of process controllers/supervisors and shift workers per plants adequate? | | 0 |
| onnel | Are there specific guidelines/rules for shift workers and their deployment? | 1 | |
| Perso | How many operators are there in total? How many shift workers? | 1 | |
| su | How many operators with qualifications in the DWAF categories? | 1 | |
| icatio | Are personnel being correctly applied according to their qualifications? | 1 | |
| Qualifications of Personnel | Are there guidelines or formal rules for upgrading of qualifications? | 1 | |
| | Are there in service training programmes and policies? What is the in-service training policy of the WSA? | 1 | |
| | Do process controllers / supervisors / managers know what training opportunities and courses are available? | 1 | |
| | Are they sent on courses regularly? | 1 | |
| Veeds | Are there specific criteria or formal rules to be qualified for training? | 1 | |
| raining Needs | Are there specific promotion requirement protocols in place? | 1 | |
| Trair | Are there career advancement opportunities? | 1 | |
| | Is the plant classified by DWAF? | 1 | |
| Plant class | Has it been done according to the new classification system? | 1 | |
| | Are the responsibilities of process controllers, supervisors and plant managers in line with their salary? | 1 | |
| ions | What system is used for overtime management and payment? | 1 | |
| Working Conditions | What is the WSA policy on conflict management (internal and external)? | 1 | |
| cing (| Is any medical assistance available for on the job injuries? | 1 | |
| Work | Can all workers participate in medical schemes? | 1 | |

| | Are the retirement/pension-aid benefits, the housing and travel allowance benefits available? | 1 | |
|--|---|-------|--|
| | Are the leave benefits (vacation /study/ sick), and the bonus scheme available? | 1 | |
| | Are there any other incentives? | 1 | |
| | Are plant personnel satisfied with their working environment? | 1 | |
| | Are the relationships between supervisors and their subordinates good or poor? | 1 | |
| | Is there any performance indicators? | 1 | |
| Maximum possible score for Human Resources | | 27 | |
| Total score | attained for Human Resources | 25 | |
| Weight for Human Resources | | 0.2 | |
| Total weigl | hted score for Human Resources | 0.185 | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 10.5 | | | |
|---|--|--------|--------|
| Criterion | | Yes =1 | No = 0 |
| 2. NON | -TECHNICAL ASSESSMENT | I | 1 |
| 2D: Finan | cial Systems | | |
| sma | Which financial systems are in place? | 1 | |
| Systems | Are there sufficient funds for operation, maintenance and overtime? | 1 | |
| Financial Sharing in Place | Do the size of the plants (small versus large) influence the allocation of funds? | 1 | |
| Financial Sharing i | Does the WSA's budgeting system work in relation to emergency funds, scheduled upgrading/extensions, unscheduled rehabilitation/upgrading? | 1 | |
| Sharing | Are there communication channels and transparency between the financial section and the water care section? | 1 | |
| | Are regular meetings held? Who attends / chairs these meetings? | 1 | |
| nformation n Place | Are decisions taken at consensus / majority? | 1 | |
| Informa in Place | Are reports freely available? | 1 | |
| ure t em | Is the procurement system transparent? | 1 | |
| Procure ment System | Is the procurement system open to all? | 1 | |

| | Is the water sector involved in the adjudication of tenders? | 1 | |
|-------------|--|-----|--|
| Maximum | possible score for Financial Systems | 11 | |
| Total score | attained for Financial Systems | 11 | |
| Weight for | Financial Systems | 0.1 | |
| Total weig | hted score for Financial Systems | 0.1 | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 10.6 | | | |
|---|---|-----|--------|
| Criterion | | | No = 0 |
| 2. NO | N-TECHNICAL ASSESSMENT | | |
| 2E: Con | nmunication Systems | | |
| | Are there sufficient internal communication channels in place, including the needs and shortcomings? | 1 | |
| | Are these communication channels effective? | 1 | |
| Internal | Is the communication between supervisors and process controllers good or poor? | 1 | |
| | Is there any interaction between the maintenance team and the rest of personnel in the water treatment plant? | 1 | |
| | Is the communication between management and lower level process controllers good or poor? | 1 | |
| | Are there sufficient communication channels with other Municipalities and/or Departments? | 1 | |
| External | Are there sufficient communication channels with consumers? | 1 | |
| | Are these external communication channels effective, good or poor? | 1 | |
| Maximum possible score for Communication Systems | | 8 | |
| Total score attained for Communication Systems | | 8 | |
| Weight for Communication Systems | | 0.2 | |
| Total we | ighted score for Communication Systems | 0.2 | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tab | le 10.7 | |
|---------------------------------|---|---------|----------|
| Criterion | | Yes =1 | No = 0 |
| 2. NO | N-TECHNICAL ASSESSMENT | | |
| 2F: Aud | lit of safety, health and environmental quality | | |
| | Are there water and safety management procedures for normal operation, incidents and emergency situations? | 1 | |
| | Is there any safety plan at water treatment plants including the safety of process controllers on duties? | 1 | |
| s | Are there emergency plans in place for chlorine leaks? | 1 | |
| Safety Matters | Are there hazardous chemicals and ablution facilities, appropriate fire extinguishers location? | 1 | |
| Safet | Are safety meetings held regularly and who attends such meetings? | 1 | |
| ıts | Are there representatives for health and safety of consumers? If yes, are they effective? | 1 | |
| Health Aspects | Are there control measures that identify risks and ensure that health based-targets are met in terms of providing safe drinking water to all consumers? | 1 | |
| Heal | Are there emergency measures in place for water quality health impact? | 1 | |
| | Are process controllers satisfied with their working environment? | 1 | |
| mental | Is the working environment appropriate for improving or accelerating the service delivery? | 1 | |
| Environmental Quality | Is there any strategic plan to improve the quality of the working environment? | 1 | |
| Maximum possible score for SHEQ | | 11 | |
| Total sco | re attained for SHEQ | 11 | |
| Weight for SHEQ | | 0.15 | ; |
| Total weighted score for SHEQ | | 0.15 | ; |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 10.8 | | |
|---|--------|--------|
| Criterion | Yes =1 | No = 0 |
| 2. NON-TECHNICAL ASSESSMENT | | |
| 2G: Community involvement and awareness | | |

| Community Involvement | Are there protocols involved communities in decision-making? | | 0 |
|--|---|-------|---|
| | Is there an effective reporting system for communities to assist in more rapid response to any water quality incident? | 1 | |
| | Is there a Consumer Service to which non-compliance can be reported? | 1 | |
| suess | Is there a mechanism system to receive and actively address community complaints in a timely fashion? | 1 | |
| Community Awareness | Are there procedures for promptly advising of any significant incidents within the drinking water supply including notification of the public health authority? | 1 | |
| Сотт | Is there any water quality information system available to consumers through annual reports and in the internet? | 1 | |
| Maximum possible score for Community Involvement | | 6 | |
| Total sco | re attained for Community Involvement | 5 | |
| Weight for Community Involvement | | 0.05 | |
| Total weighted score for Community Involvement | | 0.042 | |

| TABLE 10.9 | | | |
|--|---|----------------|--|
| NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING: | | | |
| | Total Weighted Scoring for Mutale Regional Water Plant 97.7 % | | |
| | Compliance Criterion | Weighted Score | |
| 2. | NON-TECHNICAL ASSESSMENT | | |
| 2A: | Management Issues | 0.1 | |
| 2B: | Management Practices | 0.2 | |
| 2C: | Human Resources | 0.185 | |
| 2D: | Financial Systems | 0.1 | |
| 2E: | Communication Systems | 0.2 | |
| 2F: | Safety, Health and Environmental Quality | 0.15 | |
| 2G: | Community Involvement and Awareness | 0.042 | |
| TOTA | TOTAL WEIGHTED SCORE 97.7 | | |

TABLE 10.10 NON-TECHNICAL (MANAGEMENT) COMPLIANCE RATING:

| Total Weighted Score | Rating Description |
|----------------------|--|
| 0 – 50 | Class 3 Compliance: Total non-compliance; serious and immediate intervention required (TAC) |
| 50 – 90 | Class 2 Compliance: Serious challenges requiring attention and improvement |
| 90 – 100 | Class 1 Compliance: Acceptable compliance |

TSHEDZA PACKAGE PLANT

12 May 2011

| | TABLE 11.1 | | | |
|------|---|--------|--|--|
| | NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING | | | |
| | Criterion | Weight | | |
| | 2. NON-TECHNICAL ASSESSMENT | | | |
| 2A: | Management Issues | 0.1 | | |
| 2B: | Management Practices | 0.2 | | |
| 2C: | Human Resources | 0.2 | | |
| 2D: | Financial Systems | 0.1 | | |
| 2E: | Communication Systems | 0.2 | | |
| 2F: | Safety, Health and Environmental Quality | 0.15 | | |
| 2G: | Community Involvement and Awareness | 0.05 | | |
| TOTA | L | 1.0 | | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tabl | e 11.2 | |
|--|--------|--------|
| Criterion | Yes =1 | No = 0 |
| 2. NON-TECHNICAL ASSESSMENT | | |
| 2A: Management Issues | | |
| Does a strategic plan for the assessment of drinking water supply systems exist? | 1 | |

| | | ı | 1 |
|---------------------------------|--|----------|----|
| | Are there preventive strategic plans for drinking water quality management? | 1 | |
| | Is there a strategic plan for recruitment of personnel per water treatment plant available? | 1 | |
| | Is there a strategic plan for operational monitoring and verification of drinking water system? | 1 | |
| | Is there a strategic plan for sharing and clarifying roles and responsibilities among all personnel involved in the production of safe drinking water quality? | 1 | |
| | Does a strategic plan for training and development of water plant personnel, and for community involvement and awareness exist? | 1 | |
| | Is there any funding strategic plan for implementation of drinking water quality management programmes? | 1 | |
| f tact is | Does a tactical plan for handling emergencies including communication of such emergencies to communities exist? | 1 | |
| Assm of tact plans | Is the overall periodic overseeing of water care function performed? | 1 | |
| As | Is there maintenance and asset management plans? | | 0 |
| ional | Is the attendance of process controllers (and in particular shift workers) at the treatment plant monitored? Is there a clock–in-system for the attendance? | 1 | |
| operat | Is the superintendent available to operators on a day-to-day basis? | 1 | |
| Assessment of operational plans | Is there a substitute system plan put in place when one of the operators is ill or away attending a course? | 1 | |
| Assess | Are the supervisors and process controllers aware of their job requirements? Are job descriptions available? | 1 | |
| Maximu | m possible score for Management Issues | 14 | I. |
| Total sco | re attained for Management Issues | 13 | |
| Weight fo | or Management Issues | 0.1 | |
| Total we | ighted score for Management Issues | 0.09 | 3 |
| <u>!</u> | | <u> </u> | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 11.3 | | |
|---|--------|--------|
| Criterion | Yes =1 | No = 0 |
| 2. NON-TECHNICAL ASSESSMENT | | |
| 2B: Management Practices | | |
| Do the WSPs use existing local (Emanti/DWAF) or international management practices? Are they implementing them in their water | 1 | |

| treatment plants? | | |
|---|--------------------------------------|--|
| Are the WPSs able to understand the existing and implementing them correctly? | c local or international practices 1 | |
| When local or international practices are not draw their own criteria? | available, are the WSPs able to 1 | |
| Maximum possible score for Management Practices | 3 | |
| Total score attained for Management Practices | 3 | |
| Weight for Management Practices | 0.2 | |
| Total weighted score for Management Practices | 0.2 | |
| | | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table | 11.4 | |
|---------------------------------|---|--------|--------|
| Criterion | | Yes =1 | No = 0 |
| 2. NON | -TECHNICAL ASSESSMENT | | |
| 2C: Huma | an Resources | | |
| ant | Is the number of personnel related to the size of the plant? | | 0 |
| Personnel at the plant | Are the needs of process controllers/supervisors and shift workers per plants adequate? | | 0 |
| onnel | Are there specific guidelines/rules for shift workers and their deployment? | 1 | |
| Perso | How many operators are there in total? How many shift workers? | 1 | |
| ion of | How many operators with qualifications in the DWAF categories? | 1 | |
| Qualification s Personnel | Are personnel being correctly applied according to their qualifications? | 1 | |
| Qual s Perso | Are there guidelines or formal rules for upgrading of qualifications? | 1 | |
| | Are there in service training programmes and policies? What is the in-service training policy of the WSA? | 1 | |
| | Do process controllers / supervisors / managers know what training opportunities and courses are available? | 1 | |
| | Are they sent on courses regularly? | 1 | |
| Veeds | Are there specific criteria or formal rules to be qualified for training? | 1 | |
| Training Needs | Are there specific promotion requirement protocols in place? | 1 | |
| Trair | Are there career advancement opportunities? | 1 | |
| an t cl as | Is the plant classified by DWAF? | 1 | |

| | Has it been done according to the new classification system? | 1 | |
|----------------------------|--|-------|--|
| | Are the responsibilities of process controllers, supervisors and plant managers in line with their salary? | 1 | |
| | What system is used for overtime management and payment? | 1 | |
| | What is the WSA policy on conflict management (internal and external)? | 1 | |
| | Is any medical assistance available for on the job injuries? | 1 | |
| | Can all workers participate in medical schemes? | 1 | |
| | Are the retirement/pension-aid benefits, the housing and travel allowance benefits available? | 1 | |
| | Are the leave benefits (vacation /study/ sick), and the bonus scheme available? | 1 | |
| Su | Are there any other incentives? | 1 | |
| ditio | Are plant personnel satisfied with their working environment? | 1 | |
| Working Conditions | Are the relationships between supervisors and their subordinates good or poor? | 1 | |
| Worl | Is there any performance indicators? | 1 | |
| Maximum | possible score for Human Resources | 27 | |
| Total score | attained for Human Resources | 25 | |
| Weight for Human Resources | | 0.2 | |
| Total weig | hted score for Human Resources | 0.185 | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 11.5 | | | |
|-------------------------------|--|---|--|--|
| Criterio | Criterion $Yes = 1 \qquad \begin{cases} No = 0 \\ 0 \end{cases}$ | | | |
| 2. NO | N-TECHNICAL ASSESSMENT | | | |
| 2D: Fir | ancial Systems | | | |
| ems | Which financial systems are in place? | 1 | | |
| Systems | Are there sufficient funds for operation, maintenance and overtime? | 1 | | |
| Financial Sharing in Place | Do the size of the plants (small versus large) influence the allocation of funds? | 1 | | |
| Financial Sharing i | Does the WSA's budgeting system work in relation to emergency funds, scheduled upgrading/extensions, unscheduled rehabilitation/upgrading? | 1 | | |

| Sharing | Are there communication channels and transparency between the financial section and the water care section? | 1 | |
|--|---|-----|--|
| | Are regular meetings held? Who attends / chairs these meetings? | 1 | |
| Information in Place | Are decisions taken at consensus / majority? | 1 | |
| Informa in Place | Are reports freely available? | 1 | |
| | Is the procurement system transparent? | 1 | |
| ent | Is the procurement system open to all? | 1 | |
| Procurement System | Is the water sector involved in the adjudication of tenders? | 1 | |
| Maximur | n possible score for Financial Systems | 11 | |
| Total score attained for Financial Systems | | 11 | |
| Weight for Financial Systems | | 0.1 | |
| Total wei | ighted score for Financial Systems | 0.1 | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 11.5 | | | |
|-------------------------------|--|--------|--------|--|
| Criterion | | Yes =1 | No = 0 | |
| 2. NO | N-TECHNICAL ASSESSMENT | | | |
| 2D: Fina | nncial Systems | | | |
| ıms | Which financial systems are in place? | 1 | | |
| Systems | Are there sufficient funds for operation, maintenance and overtime? | 1 | | |
| Financial Sharing in Place | Do the size of the plants (small versus large) influence the allocation of funds? | 1 | | |
| Financial Sharing i | Does the WSA's budgeting system work in relation to emergency funds, scheduled upgrading/extensions, unscheduled rehabilitation/upgrading? | 1 | | |
| Sharing | Are there communication channels and transparency between the financial section and the water care section? | 1 | | |
| | Are regular meetings held? Who attends / chairs these meetings? | 1 | | |
| Information in Place | Are decisions taken at consensus / majority? | 1 | | |
| Informa in Place | Are reports freely available? | 1 | | |

| | Is the procurement system transparent? | 1 | |
|--|--|-----|--|
| Procurement System | Is the procurement system open to all? | 1 | |
| | Is the water sector involved in the adjudication of tenders? | 1 | |
| Maximur | n possible score for Financial Systems | 11 | |
| Total score attained for Financial Systems | | 11 | |
| Weight for Financial Systems | | 0.1 | |
| Total weighted score for Financial Systems | | 0.1 | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 11.6 | | | |
|---|---|-------------|---|
| Criterion | | Yes =1 No 0 | |
| 2. NO | N-TECHNICAL ASSESSMENT | | |
| 2E: Con | nmunication Systems | | |
| | Are there sufficient internal communication channels in place, including the needs and shortcomings? | 1 | |
| | Are these communication channels effective? | 1 | |
| | Is the communication between supervisors and process controllers good or poor? | 1 | |
| | Is there any interaction between the maintenance team and the rest of personnel in the water treatment plant? | 1 | |
| Internal | Is the communication between management and lower level process controllers good or poor? | 1 | |
| | Are there sufficient communication channels with other Municipalities and/or Departments? | 1 | |
| rnal | Are there sufficient communication channels with consumers? | 1 | |
| External | Are these external communication channels effective, good or poor? | 1 | |
| Maximum possible score for Communication Systems | | 8 | 1 |
| Total score attained for Communication Systems | | 8 | |
| Weight for Communication Systems | | 0.2 | |

| Total weighted score for Communication Systems | 0.2 |
|--|-----|
| | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 11.7 | | | |
|---|--|--------|--------|
| Criterion | | Yes =1 | No = 0 |
| 2. NON-TI | ECHNICAL ASSESSMENT | | l . |
| 2F: Audit of | safety, health and environmental quality | | |
| | Are there water and safety management procedures for normal operation, incidents and emergency situations? | 1 | |
| | Is there any safety plan at water treatment plants including the safety of process controllers on duties? | 1 | |
| ys. | Are there emergency plans in place for chlorine leaks? | 1 | |
| Safety Matters | Are there hazardous chemicals and ablution facilities, appropriate fire extinguishers location? | 1 | 11 11 |
| Safet | Are safety meetings held regularly and who attends such meetings? | 1 | |
| | Are there representatives for health and safety of consumers? If yes, are they effective? | 1 | |
| spects | Are there control measures that identify risks and ensure that health based- targets are met in terms of providing safe drinking water to all consumers? | 1 | |
| Health Aspects | Are there emergency measures in place for water quality health impact? | 1 | |
| | Are process controllers satisfied with their working environment? | 1 | |
| mental | Is the working environment appropriate for improving or accelerating the service delivery? | 1 | |
| Environmental Quality | Is there any strategic plan to improve the quality of the working environment? | 1 | |
| Maximum possible score for SHEQ | | 11 | ı |
| Total score attained for SHEQ | | 11 | |
| Weight for SE | IEQ | 0.15 | |
| Total weighted score for SHEQ | | 0.15 | ; |

NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 11.8

| Criterion | | Yes =1 | No = 0 |
|--|---|----------|--------|
| 2. NO | N-TECHNICAL ASSESSMENT | <u> </u> | 1 |
| 2G: Con | nmunity involvement and awareness | | |
| | Are there protocols involved communities in decision-making? | | 0 |
| Community Involvement | Is there an effective reporting system for communities to assist in more rapid response to any water quality incident? | | 0 |
| Com Invo | Is there a Consumer Service to which non-compliance can be reported? | 1 | |
| Community Awareness | Is there a mechanism system to receive and actively address community complaints in a timely fashion? | 1 | |
| | Are there procedures for promptly advising of any significant incidents within the drinking water supply including notification of the public health authority? | 1 | |
| Commu | Is there any water quality information system available to consumers through annual reports and in the internet? | 1 | |
| Maximum possible score for Community Involvement | | 6 | |
| Total score attained for Community Involvement | | 4 | |
| Weight for Community Involvement | | 0.05 | 5 |
| Total weighted score for Community Involvement | | 0.03 | 3 |

| TABLE 11.9 | |
|--|--|
| NON-TECHNICAL (MANAGEMENT) COM | PLIANCE SCORING: |
| Total Weighted Scoring for Tshedza Pack | kage plant <u>96.1 %</u> |
| Compliance Criterion | Weighted Score |
| NON-TECHNICAL ASSESSMENT | 1 |
| Management Issues | 0.093 |
| Management Practices | 0.2 |
| Human Resources | 0.185 |
| Financial Systems | 0.1 |
| Communication Systems | 0.2 |
| Safety, Health and Environmental Quality | 0.15 |
| Community Involvement and Awareness | 0.033 |
| | NON-TECHNICAL (MANAGEMENT) COM Total Weighted Scoring for Tshedza Pacl Compliance Criterion NON-TECHNICAL ASSESSMENT Management Issues Management Practices Human Resources Financial Systems Communication Systems Safety, Health and Environmental Quality |

| TOTAL WEIGHTED SCORE | 96.1 |
|----------------------|------|
| | |

| TABLE 11.10 | | | |
|---|--|--|--|
| NON-TECHNICAL (MANAGEMENT) COMPLIANCE RATING: | | | |
| Total Weighted Score | Rating Description | | |
| 0 – 50 | Class 3 Compliance: Total non-compliance; serious and immediate intervention required (TAC) | | |
| 50 – 90 | Class 2 Compliance: Serious challenges requiring attention and improvement | | |
| 90 – 100 | Class 1 Compliance: Acceptable compliance | | |

DZINGAHE PACKAGE PLANT

11 May 2011

| | TABLE 12.1 | | | | |
|------|---|--------|--|--|--|
| | NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING | | | | |
| | Criterion | Weight | | | |
| | 2. NON-TECHNICAL ASSESSMENT | | | | |
| 2A: | Management Issues | 0.1 | | | |
| 2B: | Management Practices | 0.2 | | | |
| 2C: | Human Resources | 0.2 | | | |
| 2D: | Financial Systems | 0.1 | | | |
| 2E: | Communication Systems | 0.2 | | | |
| 2F: | Safety, Health and Environmental Quality | 0.15 | | | |
| 2G: | Community Involvement and Awareness | 0.05 | | | |
| TOTA | L | 1.0 | | | |

NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 12.2

| Criterion | | Yes =1 | No = 0 |
|--|--|-----------|--------|
| 2. NON-TEC | CHNICAL ASSESSMENT | <u> </u> | |
| 2A: Managemen | nt Issues | | |
| | Does a strategic plan for the assessment of drinking water supply systems exist? | 1 | |
| | Are there preventive strategic plans for drinking water quality management? | 1 | |
| | Is there a strategic plan for recruitment of personnel per water treatment plant available? | 1 | |
| St | Is there a strategic plan for operational monitoring and verification of drinking water system? | 1 | |
| Assessment of strategic plans | Is there a strategic plan for sharing and clarifying roles and responsibilities among all personnel involved in the production of safe drinking water quality? | 1 | |
| nent of s | Does a strategic plan for training and development of water plant personnel, and for community involvement and awareness exist? | 1 | |
| Assessn | Is there any funding strategic plan for implementation of drinking water quality management programmes? | 1 | |
| tact | Does a tactical plan for handling emergencies including communication of such emergencies to communities exist? | 1 | |
| Assm of tact plans | Is the overall periodic overseeing of water care function performed? | 1 | |
| As | Is there maintenance and asset management plans? | 1 | |
| ational | Is the attendance of process controllers (and in particular shift workers) at the treatment plant monitored? Is there a clock—in-system for the attendance? | 1 | |
| oper ns | Is the superintendent available to operators on a day-to-day basis? | 1 | |
| Assessment of operation plans | Is there a substitute system plan put in place when one of the operators is ill or away attending a course? | 1 | |
| Asses | Are the supervisors and process controllers aware of their job requirements? Are job descriptions available? | 1 | |
| Maximum possible score for Management Issues | | | 14 |
| Total score attained for Management Issues | | | 14 |
| Weight for Management Issues | | | 0.1 |
| Total weighted | score for Management Issues | (| 0.1 |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tabl | e 12.3 | |
|---|--------|--------|
| Criterion | Yes =1 | No = 0 |
| 2. NON-TECHNICAL ASSESSMENT | l | |
| 2B: Management Practices | | |
| Do the WSPs use existing local (Emanti/DWAF) or international management practices? Are they implementing them in their water treatment plants? | 1 | |
| Are the WPSs able to understand the existing local or international practices and implementing them correctly? | 1 | |
| When local or international practices are not available, are the WSPs able to draw their own criteria? | 1 | |
| Maximum possible score for Management Practices | | l |
| Total score attained for Management Practices | | |
| Weight for Management Practices | | |
| Total weighted score for Management Practices | | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 12.4 | | | |
|------------------------|---|---|--------|-----------|
| Crite | erion | | Yes =1 | No = 0 |
| 2. | NON- | TECHNICAL ASSESSMENT | | |
| 2C: | Huma | n Resources | | |
| Personnel at the plant | | Is the number of personnel related to the size of the plant? | | 0 |
| | | Are the needs of process controllers/supervisors and shift workers per plants adequate? | | 0 |
| 3 | onnei | Are there specific guidelines/rules for shift workers and their deployment? | 1 | |
| Down | rers | How many operators are there in total? How many shift workers? | 1 | |
| ons | el | How many operators with qualifications in the DWAF categories? | 1 | |
| Qualifications | of Personnel | Are personnel being correctly applied according to their qualifications? | 1 | |
| Quali | of Pe | Are there guidelines or formal rules for upgrading of qualifications? | 1 | |
| Train ing | Need | Are there in service training programmes and policies? What is the in-service training policy of the WSA? | 1 | |

| | Do process controllers / supervisors / managers know what training | 1 | |
|--|--|-------|---|
| | opportunities and courses are available? | - | |
| | Are they sent on courses regularly? | 1 | |
| | Are there specific criteria or formal rules to be qualified for training? | 1 | |
| | Are there specific promotion requirement protocols in place? | 1 | |
| | Are there career advancement opportunities? | 1 | |
| | Is the plant classified by DWAF? | 1 | |
| Plant | Has it been done according to the new classification system? | 1 | |
| | Are the responsibilities of process controllers, supervisors and plant managers in line with their salary? | | 0 |
| | What system is used for overtime management and payment? | 1 | |
| | What is the WSA policy on conflict management (internal and external)? | 1 | |
| | Is any medical assistance available for on the job injuries? | 1 | |
| | Can all workers participate in medical schemes? | 1 | |
| | Are the retirement/pension-aid benefits, the housing and travel allowance benefits available? | 1 | |
| | Are the leave benefits (vacation /study/ sick), and the bonus scheme available? | 1 | |
| SI | Are there any other incentives? | 1 | |
| ditior | Are plant personnel satisfied with their working environment? | 1 | |
| orking Conditions | Are the relationships between supervisors and their subordinates good or poor? | 1 | |
| Work | Is there any performance indicators? | 1 | |
| Maximum possible score for Human Resources | | 27 | |
| Total score attained for Human Resources | | 24 | |
| Weight for Human Resources | | 0.2 | |
| Total weighted score for Human Resources | | 0.178 | 3 |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 12.5 | | | | |
|---|--------|--------|--|--|
| Criterion | Yes =1 | No = 0 | | |
| 2. NON-TECHNICAL ASSESSMENT | | | | |

| 2D: Finan | cial Systems | | |
|--|--|-----|--|
| sm | Which financial systems are in place? | 1 | |
| Systems | Are there sufficient funds for operation, maintenance and overtime? | 1 | |
| Financial Sharing in Place | Do the size of the plants (small versus large) influence the allocation of funds? | 1 | |
| Financial Sharing i | Does the WSA's budgeting system work in relation to emergency funds, scheduled upgrading/extensions, unscheduled rehabilitation/upgrading? | 1 | |
| Sharing | Are there communication channels and transparency between the financial section and the water care section? | 1 | |
| | Are regular meetings held? Who attends / chairs these meetings? | 1 | |
| Information in Place | Are decisions taken at consensus / majority? | 1 | |
| Informa in Place | Are reports freely available? | 1 | |
| | Is the procurement system transparent? | 1 | |
| nt | Is the procurement system open to all? | 1 | |
| Procurement System | Is the water sector involved in the adjudication of tenders? | 1 | |
| Maximum | possible score for Financial Systems | 11 | |
| Total score attained for Financial Systems | | 11 | |
| Weight for Financial Systems | | 0.1 | |
| Total weighted score for Financial Systems | | 0.1 | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 12.6 | | | | | |
|---|--|---|--------|--|--|
| Criterion $ Yes = 1 $ | | | No = 0 | | |
| 2. NO | 2. NON-TECHNICAL ASSESSMENT | | | | |
| 2E: Con | 2E: Communication Systems | | | | |
| | Are there sufficient internal communication channels in place, including the needs and shortcomings? | | | | |
| ıal | Are these communication channels effective? | 1 | | | |
| Internal | Is the communication between supervisors and process controllers good or | 1 | | | |

| | poor? | |
|--|---|-----|
| | Is there any interaction between the maintenance team and the rest of personnel in the water treatment plant? | 1 |
| | Is the communication between management and lower level process controllers good or poor? | 1 |
| | Are there sufficient communication channels with other Municipalities and/or Departments? | 1 |
| mal | Are there sufficient communication channels with consumers? | 1 |
| External | Are these external communication channels effective, good or poor? | 1 |
| Maximu | Maximum possible score for Communication Systems | |
| Total score attained for Communication Systems | | 8 |
| Weight for Communication Systems | | 0.2 |
| Total we | Total weighted score for Communication Systems | |

| NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Table 12.7 | | | | | |
|---|---|--------|--------|--|--|
| Criterion | | Yes =1 | No = 0 | | |
| 2. NO | N-TECHNICAL ASSESSMENT | | | | |
| 2F: Aud | lit of safety, health and environmental quality | | | | |
| | Are there water and safety management procedures for normal operation, incidents and emergency situations? | 1 | | | |
| | Is there any safety plan at water treatment plants including the safety of process controllers on duties? | 1 | | | |
| S | Are there emergency plans in place for chlorine leaks? | 1 | | | |
| Safety Matters | Are there hazardous chemicals and ablution facilities, appropriate fire extinguishers location? | 1 | | | |
| Safe | Are safety meetings held regularly and who attends such meetings? | 1 | | | |
| cts | Are there representatives for health and safety of consumers? If yes, are they effective? | 1 | | | |
| Health Aspects | Are there control measures that identify risks and ensure that health based-targets are met in terms of providing safe drinking water to all consumers? | 1 | | | |
| Heal | Are there emergency measures in place for water quality health impact? | 1 | | | |
| m en tal | Are process controllers satisfied with their working environment? | 1 | | | |

| Is the working environment appropriate for improving or accelerating the service delivery? | 1 | | |
|--|----|------|--|
| Is there any strategic plan to improve the quality of the working environment? | 1 | | |
| Maximum possible score for SHEQ | 11 | | |
| Total score attained for SHEQ | | | |
| Weight for SHEQ | | 0.15 | |
| Total weighted score for SHEQ | | | |

| | NON-TECHNICAL COMPLIANCE (MANAGEMENT) SCORING: Tabl | e 12.8 | |
|--|---|--------|----------|
| Criterion | | Yes =1 | No = 0 |
| 2. NO | N-TECHNICAL ASSESSMENT | | <u>I</u> |
| 2G: Con | nmunity involvement and awareness | | |
| | Are there protocols involved communities in decision-making? | | 0 |
| Community Involvement | Is there an effective reporting system for communities to assist in more rapid response to any water quality incident? | 1 | |
| Com | Is there a Consumer Service to which non-compliance can be reported? | 1 | |
| Community Awareness | Is there a mechanism system to receive and actively address community complaints in a timely fashion? | 1 | |
| | Are there procedures for promptly advising of any significant incidents within the drinking water supply including notification of the public health authority? | 1 | |
| | Is there any water quality information system available to consumers through annual reports and in the internet? | 1 | |
| Maximum possible score for Community Involvement | | 6 | l |
| Total score attained for Community Involvement | | 5 | |
| Weight for Community Involvement | | 0.05 | |
| Total weighted score for Community Involvement | | 0.042 | |

TABLE 12.9 NON-TECHNICAL (MANAGEMENT) COMPLIANCE SCORING: Total Weighted Scoring for Dzingahe Package plant 97.0 %

| | Compliance Criterion | Weighted Score |
|-------|--|----------------|
| 2. | NON-TECHNICAL ASSESSMENT | • |
| 2A: | Management Issues | 0.1 |
| 2B: | Management Practices | 0.2 |
| 2C: | Human Resources | 0.178 |
| 2D: | Financial Systems | 0.1 |
| 2E: | Communication Systems | 0.2 |
| 2F: | Safety, Health and Environmental Quality | 0.15 |
| 2G: | Community Involvement and Awareness | 0.042 |
| TOTAL | . WEIGHTED SCORE | 0.97 |

| TABLE 12.10 | | | | |
|---|--|--|--|--|
| NON-TECHNICAL (MANAGEMENT) COMPLIANCE RATING: | | | | |
| Total Weighted Score Rating Description | | | | |
| 0 – 50 | Class 3 Compliance: Total non-compliance; serious and immediate intervention required (TAC) | | | |
| 50 – 90 | Class 2 Compliance: Serious challenges requiring attention and improvement | | | |
| 90 – 100 | Class 1 Compliance: Acceptable compliance | | | |

 Table S2. Ranking of the Problem Areas in Priority Order after the first assessment.

| | | 1A. aspect | Design | 1D. Monitoring Practices | Plant | 1F. Management Practices | Risk |
|---|----------------------------------|---------------|--------|--------------------------------|-------|---|------|
| 1 | Insignificant Health Consequence | | | 7740700 | | 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | |
| 2 | Minor Health Consequence | | | | | | |
| 3 | Moderate Health Consequence | 3 | | 3 | | | |
| 4 | Major Health Consequence | | | | | 4 | |
| 5 | Catastrophic Health Consequence | | | | | | |