

Water Quality Management Series

Operational Guideline

No. M 5.0

**OPERATIONAL GUIDELINE
FOR THE DWAF
TO ASSIST THE DME WITH
ENVIRONMENTAL
MANAGEMENT PROGRAMMES
IN TERMS OF THE MINERALS ACT**



Department of Water Affairs & Forestry

JUNE 1998

Published by

Department of Water Affairs and Forestry
Private Bag X313
PRETORIA
0001

Republic of South Africa
Tel: (012) 338-7500

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This report should be cited as:

Department of Water Affairs and Forestry, No. M 5.0, 1998. Operational
Guideline for the DWAF to assist the DME with Environmental Management
Programmes in terms of the Minerals Act.

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DOCUMENT INDEX

This document is the fifth in a series of documents in the M-subseries dealing specifically with mining related issues. To date the following documents have been published.

- M 1.0 Operational Guideline for the Control over the Alteration in the Course of a Public Stream.
- M 2.0 Guideline concerning Financial Provision for the Rehabilitation of Land Disturbed by Mining Activities.
- M 3.0 Policy and Strategy for Management of Water Quality Regarding the Mining Industry in the RSA.
- M 4.0 Operational Guideline for the application by a mine for a permit in terms of Sections 12B and 21 of the Water Act (Act 54 of 1956).
- M 5.0 Operational Guideline for the DWAF to assist the DME with Environmental Management Programmes in terms of the Minerals Act.

APPROVAL

TITLE : Department of Water Affairs and Forestry, 1998. Operational Guideline for the DWAF to assist the DME with Environmental Management Programmes in terms of the Minerals Act.

COORDINATOR : C.L. van den Berg

REPORT STATUS : Draft Report

FILE NO.: 16/1/1/2/2/1/1

REPORT NO: M 5.0

DATE : June 1998

Approved for the Department of Water Affairs and Forestry.

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PREAMBLE

The Department of Water Affairs and Forestry (DWAF), as the custodian of the national water resource, has the task to manage the water resources of South Africa. The water quality management goal is the protection and improvement of water quality in order to ensure sustainable utilisation of water resources.

The Department of Minerals and Energy (DME) is required in terms of the Minerals Act (1991) to ensure that the rehabilitation of the surface of land concerned in any prospecting and/or mining operation is done according to an acceptable Environmental Management Programme (EMP).

Both the DME and the DWAF must therefore exercise control over the environmental impact of mining activities in order to satisfy the requirements of their respective mandates. Co-operation between the DME and the DWAF in this regard is in the best interest of both Departments as well as the mining industry. Mines utilise vast quantities of water in their mining and beneficiation processes. In addition, they may also have significant negative impacts on water quality.

Prior to the approval of an Environmental Management Programme, the Regional Director of Minerals and Energy has to consult with each Department, which administers an Act concerning the environment. The Department of Water Affairs and Forestry is one such Department.

A Memorandum of Understanding (MoU) between DME and DWAF has been signed to ensure co-operation and co-ordination between the two Departments. In terms of the MoU the DWAF will assist the DME to evaluate EMP's. The purpose of this Operational Guideline is to ensure that the DWAF provides the required assistance to DME and to ensure that the objectives of both Departments are promoted in this process, in line with the MoU.

OPERATIONAL GUIDELINE FOR THE DWAF TO ASSIST THE DME WITH ENVIRONMENTAL MANAGEMENT PROGRAMMES IN TERMS OF THE MINERALS ACT.

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1. BACKGROUND

The Department of Minerals and Energy (DME) is required in terms of the Minerals Act (1991) to ensure that the rehabilitation of the surface of land concerned in any prospecting and/or mining operation is done according to an acceptable Environmental Management Programme (EMP).

The Department of Water Affairs and Forestry (DWAF), as the custodian of the national water resource, has the task to manage the water resources of South Africa. The water quality management goal is the protection and improvement of water quality in order to ensure sustainable utilisation of water resources.

Both the DME and the DWAF must therefore exercise control over the environmental impact of mining activities in order to satisfy the requirements of their respective mandates. Co-operation between the DME and the DWAF in this regard is in the best interest of both Departments as well as the mining industry. Mines utilise vast quantities of water in their mining and beneficiation processes. In addition, they may also have significant negative impacts on water quality.

Prior to the approval of an Environmental Management Programme, the Regional Director of Minerals and Energy has to consult with each Department, which administers an Act concerning the environment. The Department of Water Affairs and Forestry is one such Department.

The DWAF considers the EMP as an important and efficient tool to control the impacts of mining on our water resources. The legislation prescribing the EMP is administered by the DME and a Memorandum of Understanding (MoU) between the DME and the DWAF has therefore been signed to ensure co-operation and co-ordination between the two Departments. A copy of the Memorandum of Understanding is included as Appendix C. In terms of the MoU the DWAF will assist DME to evaluate EMP's. The purpose of this Operational Guideline is to ensure that the DWAF provides the required assistance to the DME and to ensure that this Department's objectives are promoted in this process, in line with the MoU.

Participation in the EMP system is the responsibility of the regional offices, which must deal directly with DME on regional level to implement this policy.

This Operational Guideline gives guidance to the regional offices of DWAF on their role in the EMP system, the classification of mines (and EMP's), the evaluation of EMP's, delegation of decision making authority, procedures for approval and requirements for reporting on the Department's involvement in the system.

2. CLASSIFICATION SYSTEM FOR MINES

All mines should be classified by the regional office of DWAF according to their potential impact on water resources. The classification system will be used to guide the Department's involvement in the EMP system. The Department should put more effort, energy and resources into the management of the impact of mines with a higher potential impact on water resources.

When an EMP is referred to DWAF, the responsibility of recommendation for approval of the EMP varies according to the potential impact of the mine's operations upon the water resource (see paragraph 5). Mines are classified with regard to their potential impact on the water resource, firstly in terms of quality and secondly in terms of other aspects of the water environment (such as quantity, integrity, etc.).

The following categories have been defined :

- A: Mines with a potentially significant and/or permanent impact on water quality. The following mines must always be classified as Category A mines:
- All gold and coal mines, irrespective of size.
 - Any mine with any kind of extractive metallurgical process, including heap leaching. (This will include most other precious and base metal mines.)
 - Any mine where pyrites occur in the mineral deposit.
- B: Mines with potentially significant and/or permanent impact only on other aspects of the water environment, for example yield / availability of water, dynamics of the river, riparian rights, etc.
- C: All other mines. These can be divided further into the following sub-sections:
- Big mines with no significant impact on the water environment, thus where ideal water quality and quantity objectives may be set. (Zero impact committed to.)
 - Small/Low impact mines/prospecting operations using the Abridged Aide-Mémoire (AAM) or a Standard Environmental Management Programme (SEMP). (As more SEMP's are developed, the use of the AAM is being phased out.)

Classification of mines will be done by the regional office based on the above classification system. Every regional office should at least compile a list of all their Category A mines as a priority list of mines which must be regularly inspected, monitored and audited.

When an EMP is referred to DWAF, the responsibility of recommendation for approval of the EMP varies according to the potential impact of the mine's operations upon the water resource. The motivation to recommend the approval of an EMP of Category A mines must be formally documented in a submission serving as a record of decision (see paragraph 6). The compilation of a submission for other category mines is also recommended as good office practice, but the decision to do it, lies with the regional offices.

3. EVALUATION OF EMP'S

When evaluating Environmental Management Programmes (EMP's) received in terms of Section 39 of the Minerals Act (Act 50 of 1991), the following applies :

- Within one month of receipt of an EMP, or within the time limit specified by DME, a written reply **must** be sent to the Department of Minerals and Energy (DME) stating whether the Department (DWAF):
 - (i) recommends approval of the EMP,
 - (ii) does not recommend approval of the EMP, stating the reasons to support this decision, or
 - (iii) needs more time to evaluate it. This should be accompanied by a commitment to a date by which a decision will be given.

If the Region needs more time, but fails to inform the DME of this, the DME may assume that the DWAF has no objections to the EMP and that it may be approved.

- For existing mines, EMP's may be recommended for approval when outstanding studies and investigations, within an acceptable time schedule are committed to in the EMP. Financial Provision should however be in accordance with Operational Guideline No. M 2.0.
- For new mines EMP's may be recommended for approval after:
 - all essential studies and investigations have been finalised and after it have been proved that all impacts could be managed to an acceptable level by the management plan
 - and after all long-term studies and investigations have been initiated.

Financial Provision must be in line with Operational Guideline No. M 2.0, with the quantum itemised in the EMP.

- Although EMP's are usually discussed in meetings arranged for that purpose, major comments on an EMP should preferably be in the form of a formal letter to DME at

regional level. It is not good practice to rely only on the minutes of a meeting to document the requirements and comments of the Department. Copies of these letters should be sent to the mine or its consultants to ensure that there is no misunderstanding. (In cases where DWAF has only minor comments this may be given at a meeting, but the officer concerned must ensure that the minutes do reflect what was said.)

- A checklist, which can be used to guide the evaluation of the water-related aspect of an EMP, is included as Appendix B.

4. FINANCIAL PROVISION

The policy of both the DME and the DWAF on Financial Provision is documented in Operational Guideline M 2.0 *Guideline concerning Financial Provision for the Rehabilitation of Land Disturbed by Mining Activities*. The Guideline includes the official policy of DME on Financial Provision.

The following additional guidelines are given for the evaluation of EMP's.

- At Category A mines, provision for water pollution control measures and rehabilitation to prevent water pollution, will form a significant component of the Financial Provision, and must therefore be evaluated by DWAF as part of an EMP. Please note that in the case of the liquidation of the mine, the funds of the financial provision will be controlled by DME as a single fund to be used for all the rehabilitation and closure costs, including the provision of water pollution control measures.
- The quantum of financial provision shall be based on the management and closure measures proposed in the EMP.

The quantum is not a fixed amount in time. The quantum at any point in time must be equal to the closure cost plus the cost of all outstanding rehabilitation at that point in time.

- The following methods can be used for Financial Provision:
 - Approved contributions to a dedicated trust fund provided for in the Income Tax Act. Take note that these funds are normally developed over time and will normally not be equal to the quantum required at any point in time. This method should therefore in many cases be supplemented by one of the other methods below, to collectively add up to the amount of the quantum.
 - A money deposit with DME.
 - A guarantee by an acceptable financial institution.
 - Guarantees from the holding company or other institutions (like ESKOM w.r.t. coal mines supplying coal to their power stations) should be in the form of a guarantee similar to a guarantee from other financial institutions.

- Any other arrangements approved by the DME.

Consultation through the EMP is the only point where DWAF is consulted on Financial Provision.

5. RECOMMENDATION RESPONSIBILITIES FOR EMP'S

The following table shows the delegated responsibilities of recommendation for approval of an EMP to the DME :

Category Mine	Responsibility for Recommendation	
	Existing Mines	New Mines
A	Regional Director	Director : Water Quality Management
B	Regional Director	Regional Director
C	Deputy Director : Water Quality Management (Region) or person authorised by him	Deputy Director : Water Quality Management (Region) or person authorised by him

The Directorate Water Quality Management: Subdirectorate Mines must be involved with new or changed mining activities at existing Category A mines.

The very important authority not to support the approval of an EMP, or a temporary authorisation, is delegated to regional level for all categories of mines, both for existing and new mines. Regional Directors may further delegate this authority to an appropriate level, for example to the water pollution control officer of a catchment. The reasons for not supporting the EMP, must be clearly documented in the comments to DME.

6. MOTIVATION FOR APPROVAL OF EMP'S

All decisions to recommend approval of Category A mines must be formally documented in a **short** motivation, approved by the official at the level as required in the previous section.

The decision to recommend approval must be communicated in the form of a formal letter to DME after the motivation has been approved.

Although the Director: Water Quality Management will approve the motivation for new Category A mines, the correspondence must be done by the regional office.

An example of the motivation is included in Appendix A, and the detailed evaluation of the water-related aspects of an Environmental Management Plan of a mine is included in Appendix B.

7. TEMPORARY AUTHORISATION FOR NEW MINING OPERATIONS

The Regional Director of DME may, in terms of Section 39(4) of the Minerals Act, grant temporary authorisation to commence with mining operations prior to the approval of an EMP but has agreed in the MoU to consult with the DWAF before granting such an authorisation.

In principle, no temporary authorisation for commencement of **new** mining operations should be supported by this Department. As implied by the Minerals Act (Act 50 of 1991), a proponent should develop and submit his EMP for approval well in advance of the time he intends to commence with mining operations. Support from the DWAF to the DME to deviate from this principle may only be given **in writing sanctioned at the same level as for the recommendation for approval of an EMP, as tabled in paragraph 5.** Support from the DWAF for temporary authorisation should be based on special circumstances supported by scientific evidence. If temporary authorisation is given by the DME without the stipulated written consent from this Department, the DME should be informed that they should take full responsibility for any detrimental effects on the environment, including the water environment, which may result.

8. MINE CLOSURE PLANS AND CLOSURE CERTIFICATES

The following table shows the responsibilities of recommendation for approval of Closure Plans and Closure Certificates to the DME:

Category Mine	Responsibility for Recommendation
A	Director : Water Quality Management
B	Regional Director
C	Deputy Director : Water Quality Management (Region) or person authorised by him

The decision to support a Closure Plan or Closure Certificate for a Category A mine must also be documented in a short submission, similar to the submission for the approval of an EMP in Appendix A.

9. QUARTERLY STATUS REPORTS

A quarterly status report must be forwarded to the Director: Water Quality Management in order to keep track of the EMP workload and to be able to prove that the DWAF is, in fact, not procrastinating the EMP process, as alleged frequently. The quarterly report must be submitted at the end of March, June, September and December of each year.

The following information should be submitted, both for the quarter and to date:

- Number of Category A EMP's approved for new mines
- Number of Category A EMP's approved for existing mines
- Number of Category A Closure Plans / Certificates approved
- Number of mine water discharge permits approved
- Number of river diversion permits approved

10. ASSISTANCE FROM THE DIRECTORATE WATER QUALITY MANAGEMENT WITH EMP'S

For any assistance and inquiries regarding EMP's or the EMP process, the personnel at Head Office listed in Appendix D may be contacted.

The Directorate Water Quality Management: Subdirectorate Mines must be involved by the region in the following evaluations at an early stage:

- EMP's for new Category A mines
- Closure Plans for Category A mines
- Closure Certificates for Category A mines
- Mine water discharge permits
- River diversion permits / licences

APPENDIX A: MOTIVATION FOR APPROVAL OF AN EMP

Name of officer
tel. nr.
file nr.

Director-General
Department of Water Affairs and Forestry
Private Bag X 313
PRETORIA
0001

Attention: Chief Engineer: Water Quality Management: Mines

RECOMMENDATION FOR APPROVAL OF THE ENVIRONMENTAL MANAGEMENT PROGRAMME (EMP) OF XYZ MINE (CATEGORY A MINE)**1. PURPOSE OF SUBMISSION**

To obtain approval that a recommendation can be made by the Regional Director of this Department to the Regional Director of the Department of Minerals and Energy (DME) that the EMP of the XYZ mine can be approved.

2. BACKGROUND

Background information, for example:

- Name of mine
- Mineral mined
- Classification (Category of Mine)
- Mining method
- Catchment
- Nearest River

3. MOTIVATION

The Environmental Management Programme (EMP) of XYZ Mine required by Section 39 of the Minerals Act (Act 50 of 1991) has been referred by the Department of Minerals and Energy to this Department for comments and a recommendation. By means of this motivation, the Department of Water Affairs & Forestry recommends the approval of this EMP to the Regional Director: ***** Region of the Department of Minerals & Energy.

4. KEY DECISIONS

The following are the key decisions taken in order to recommend the approval of the EMP of XYZ Mine. The detailed evaluation of the water related aspects are appended.

4.1 Impact Assessment

The identification and assessment of the impact of a mine's existing and future activities on the water environment (e.g. surface, groundwater, marine, etc) is appropriate, accurate and reliable. The full life cycle of the mine was taken into account, as well as interaction with other environmental media.

4.2 Impact Management

The existing and proposed impact management measures fulfil the Department of Water Affairs and Forestry (DWAF)'s current criteria and standards with respect to measures of this nature. After implementation of these measures, the residual effect on the water environment is also acceptable.

4.3 Financial Provision

Financial provision for closure costs and for any outstanding rehabilitation at any point in time and to ensure that the existing and proposed impact management measures are implemented and maintained, is adequate, accessible, secure and allocated specifically for the intended purpose.

4.4 Residual Risk

The residual risk for adverse effects on the water environment is acceptable. The above mentioned aspects and the additional measures to minimise this risk, have been taken into consideration.

5. APPROVAL

Approval is requested that a recommendation can be made to the DME that the EMP of the XYZ mine can be approved. In terms of departmental policy in Operational Guideline No. M 5.0 the authority to approve this decision for a new Category A mine has been delegated to the Director: Water Quality Management.

Deputy Director: ***** Region
Date:

RECOMMENDED / NOT RECOMMENDED

Regional Director: ***** Region
Date:

(The following signatures are only applicable in the case of a new Category A mine.)

RECOMMENDED / NOT RECOMMENDED

Chief Engineer: Water Quality Management: Sub Directorate Mines
Date:

APPROVED / NOT APPROVED

Director: Water Quality Management
Date:

APPENDIX B: CHECKLIST FOR THE EVALUATION OF AN EMP

DEPARTMENT OF WATER AFFAIRS AND FORESTRY

EVALUATION OF THE WATER RELATED ASPECTS OF AN ENVIRONMENTAL MANAGEMENT PLAN OF A MINE

1. BACKGROUND

Name _____ of _____ mine

Mineral _____ Mined

Category _____ of _____ Mine

Mining _____ Method

Catchment _____

Nearest _____ River

2. IMPACT ASSESSMENT (Phases : Construction; Operational; Decommissioning; Post Closure)

Was the identification and assessment of the impact of the proponent's operations **appropriate**, **accurate** and **reliable**, with regard to:

Water Environment

Surface water:

- Quality
 - Local _____
 - Regional _____
- Yield and Hydrology
 - Local _____
 - Regional _____

Ground Water:

- Quality
 - Local
 - Regional
-
-

- Yield and Geohydrology
 - Local

- Regional _____

Other Environmental Media

- (Specify, i.e. wetlands, etc) _____

3. MANAGEMENT PLAN (Phases : Construction; Operational; Decommissioning; Post Closure)

Does the proposed impact management measures regarding the items below adhere to the DWAF's current evaluation criteria and are they appropriate to mitigate impacts identified in the impact assessment:

(Note: This includes the siting, design, construction, operation, maintenance, final rehabilitation and control of those measures.)

Water Pollution Prevention methods

Prevention or retarding of pyrite oxidation in stopes

Maximisation of opencast rehabilitation

Rehabilitation and vegetation of Residue Deposits

Management of water, slimes and slurry circuit to prevent and contain spillage

Construction and maintenance of paddocks and pollution control dams

Disposal of non mine waste

Other (Specify)

Storm Water Management

Separation of clean and dirty water

Prevention of storm water inflow into mine workings _____

Runoff and spillage from :

- Tailings _____ Dams
- Slurry _____ Ponds
- Plant _____ Area
- Stockpiles _____
- Waste _____ Dumps

Stream _____ alterations

Ground Water Management

Impervious liners for Pollution Control _____ Dams

impervious liners for Residue _____ Deposits

Minimisation and Reuse of Mine Water

Process _____ water

Sewage _____ effluent

Contaminated _____ Storm _____ water

Decant water from opencast _____ areas

Dewatering of mining _____ areas

Monitoring System

Surface _____ water

Ground _____ water

4. RESIDUAL IMPACT ON THE WATER ENVIRONMENT (Phases : Construction; Operational; Decommissioning; Post Closure)

Is the anticipated residual impact on the water resource acceptable, after taking due cognisance of the measures taken for each of the pollution sources, with regard to:

Surface Water:

- Quality
 - Local _____
 - Regional _____

- Yield and Hydrology

- Local _____

- Regional _____

Ground Water

- Quality

- Local _____

- Regional _____

- Yield and Geohydrology

- Local _____

- Regional _____

5. FINANCIAL PROVISION

Has the proponent the financial means to ensure that the management measures proposed to control the effect of his activities on the water environment, will be implemented and maintained during the:

- Construction phase _____

- Operational phase _____

- Decommissioning phase _____

- Post Closure phase _____

6. RESIDUAL RISK

(*The aspects outlined hereunder are aimed at quantifying the residual risk and should be considered carefully.*)

Proponent

Did the proponent :

- demonstrate that he comprehends the DWAF's requirements? _____

- translate these requirements into acceptable measurable objectives? _____

- indicate that these objectives are achievable at operational level? _____

Did the proponent demonstrate that he comprehends the **holistic** and integrated nature of the system? (Integrated Environment Management (IEM) for prospecting and mining)

Is the proponent's attitude and track record regarding environmental issues such that it could be stated with reasonable certainty that this EMP will be implemented and maintained?

Impact Assessment

Is the risk that the Impact Assessment may not be **properly identified, appropriate or accurate**, acceptable?

Impact Management

Is the risk that the Impact Management may not be **reliable, sustainable or appropriate**, acceptable?

Contingency Plans

Was contingency plans developed in case the management measures are not feasible , appropriate?

Additional controls

Are additional controls in place to minimise the residual risk, (to ensure effective implementation and control over the EMP), these being :

Statutory instruments (*These may include inter alia permits in terms of Sections 9, 9A, 9B, 9C, 11, 12, 12A, 12B, 20 & 21 of the Water Act and Section 20 of the Environment Conservation Act*).

Non-statutory instruments :

- Catchment Management Plan

- Ongoing and structured involvement of affected parties _____

7. RECOMMENDATION

Approval of the EMP is recommended / not recommended.

Name of Officer

Date

APPENDIX C: MEMORANDUM OF UNDERSTANDING between DEPARTMENT OF WATER AFFAIRS & FORESTRY and DEPARTMENT OF MINERALS AND ENERGY concerning INTEGRATED ENVIRONMENTAL MANAGEMENT FOR PROSPECTING AND MINING ACTIVITIES IN THE REPUBLIC OF SOUTH AFRICA

1. THE SCOPE OF THE MEMORANDUM

This memorandum is intended to provide an understanding of the nature of the working relationship between the Department of Water Affairs and Forestry (DWAF) and the Department of Minerals and Energy (DME) concerning **participation** pertaining to **Integrated Environmental Management for prospecting and mining activities** in South Africa as implied by the requirements of the Minerals Act and the Water Act. This will improve the efficiency of the process, and will minimise potential conflict and ambiguity.

In order to serve this purpose, the memorandum records a mutual understanding on the following issues:

- The fundamental premises with regard to Integrated Environmental Management, the role of such a system and its key success factors.
- The principles and obligations of both Departments regarding participation in the integrated environmental management.

More detailed procedures and guidelines may be developed from the agreed principles contained in the memorandum.

2. INTEGRATED ENVIRONMENTAL MANAGEMENT

2.1 Fundamental premises

The Department of Minerals and Energy (DME) is required in terms of the Minerals Act (1991) to ensure the optimal utilisation and safe exploitation of mineral and energy resources, together with the rehabilitation of the surface of land concerned in any prospecting and/or mining operation according to an acceptable Environmental Management Programme (EMP). Prior to the approval of an Environmental Management Programme, the Regional Director of Minerals and Energy has to consult with each Department, which administers an Act concerning the environment. The Department of Water Affairs and Forestry is one such Department.

The Department of Water Affairs and Forestry (DWAF) is required in terms of the Water Act (1956) to manage the development and utilisation of the water resources of the country for the economic and social prosperity of all its inhabitants. With regard to water quality, this includes the responsibility for ensuring that these resources remain fit for use on a sustained basis. Mining activities have been identified as a specific concern with regard to impacts on the water environment, which resulted in increasing the focus on more effective strategies to exercise control.

Both the DME and the DWAF must therefore exercise control over the environmental impact of mining activities in order to satisfy the requirements of their respective mandates. Co-operation between the DME and the DWAF in this regard is in the best interests of both Departments as well as the mining industry, and it will be facilitated by participation in the Integrated Environmental Management process for prospecting and mining activities.

2.2 The role of Integrated Environmental Management

- Integrated Environmental Management has a key role to play in the regulatory system of both Departments with respect to:
 - Placing the Departments in a position to address anticipated effects on the environment before mining proceeds.
 - Placing the Departments in a position to address effects on the environment of operating mines.
 - Placing the Departments in a position to ensure that acceptable environmental objectives including regulatory requirements are constantly met.
 - Ensuring that mining proponents have understood the magnitude and nature of the effect which their activities will have on the environment and have committed themselves to a practical means of dealing with these effects throughout the life of the mine before commencing with a mining venture.
 - Providing the authorities with an opportunity to satisfy themselves that the proponents have the means to ensure that the management measures proposed to control the environmental effect of their activities will be implemented.
- It is acknowledged that the DME is best placed to assume the role of leadership (lead agent) for the overall co-ordination of the integrated system but that decision-making by the lead-agent on matters of common concern shall be accomplished after consultation with the DWAF.

2.3 Key success factors

Effective operation of Integrated Environmental Management is based on the following key success factors:

- Clear definition of the role and mandate of each Department.
- Consensus-based decision-making within the framework of the lead-agent concept as contemplated in paragraph 2.2 above.
- Effective communication based on a structured system.
- Effective leadership.
- Effective conflict resolution mechanisms.
- A good working relationship between the officials of the two departments, based on a spirit of goodwill and co-operation at all levels.
- Consistent implementation.

3. PARTICIPATION

3.1 Principles

Participation in Integrated Environmental Management is based on the following principles:

- The process requires dynamic leadership, regular contributions and consistent attention by both parties.
- Responsibility for leadership and facilitation of the process maintenance lies with the lead agent.
- Participation within the environmental management process is based on the understanding that the regulatory objectives of both parties are being satisfactorily served.
- Participation in the environmental management process will impose certain obligations on both parties.

3.2 Obligations of the DME

The DME hereby agrees to:

- Consult with the DWAF on the formulation of policy, legislation and regulations, which have a bearing on water and other aspects that could have an effect on the water environment.
- Consult before:
 - Approving any EMP (Environmental Management Programme)
 - Granting any mine closure (partial or in full)
 - Amending or withdrawing an EMP
 - Granting temporary authorisation for the commencement of any prospecting or mining operation
 - Allowing any activity, which requires a recommendation from DWAF through the regulations, promulgated under the Minerals Act.
- Consult when water-related issues are involved in determining the original quantum financial provisions.
- Establish procedures to facilitate co-operation in approving implementation and revision of EMP's.
- Consult on setting up guidelines, which have a bearing on water, and other aspects that could have an effect on the water environment.
- Facilitate and adjudicate in matters pertaining to the resolution of conflict between government departments, and between the proponent and government.
- Investigate and implement, where appropriate, the provisions of the Minerals Act (1991) to provide for adequate pecuniary provision, monitoring, auditing, prosecution of offenders and remediation.
- Consult before imposing rectifying measures where water-related aspects are concerned.
- Ensure all relevant data, information and reports regarding water quality and water supply in terms of monitoring and auditing as required through the EMP or other legislation are made available to the DWAF.
- Consult before approving any site for impoundment or placement of discard material.
- Consult before approving undermining of riverine areas and water containing structures.
- Notify the DWAF of any proposed/possible river diversions.
- Notify the DWAF of any incident reported in terms of the Mineral Act Regulations 25.6(d)(i) and (iii).

- Establish and maintain formal communication systems between the departments.
- Refer differences, in the case where consultation and/or facilitation does not result in agreement, to the next level in the hierarchy, and to continue referring it higher until a solution has been found.

3.3 Obligations of the DWAF

The DWAF hereby agrees to:

- Consult with the DME on the formulation of policy, legislation and regulations that could have a bearing on the integrated environmental management process.
- Support the DME in providing the required expertise and resources to evaluate and respond to applications from mining proponents timeously and in accordance with agreed procedures.
- Provide proponents through the lead agent with clearly defined requirements on water related aspects for the preparation of their EMP's and give feedback on proposals where necessary.
- Provide the required expertise to support the DME in setting up procedures and guidelines, and to ensure that the DWAF requirements are clearly defined in this process.
- Provide the DME with assistance in the resolution of conflict.
- Endeavour to provide the DME with assistance regarding Integrated Environmental Management wherever requested.
- Respond to any request from the DME for consultation within an agreed period of time.
- Ensure that the requirements of the DWAF are clearly identified and defined in the relevant EMP's.
- Maintain the formal communication system between the departments, as established by DME
- Refer differences, in the case where consultation and/or facilitation does not result in agreement, to the next level in the hierarchy, and to continue referring it higher until a solution has been found.

APPENDIX D: PERSONNEL AT HEAD OFFICE DEALING WITH EMP'S

Inquiries Regions)	Official	Telephone No	Fax No	e-mail
Gauteng Free State	M. Eksteen	012 - 338 7504	012 - 323 0321	tcc@dwaf.pwv.gov.za
KwaZulu- Natal Eastern Cape	R. Schwab	012 - 338 7512	012 - 323 0321	tce@dwaf.pwv.gov.za
Mpumalanga	B. Postma	012 - 338 7511	012 - 323 0321	tcf@dwaf.pwv.gov.za
Northern Cape	C.L. van den Berg	012 - 338 7509	012 - 323 0321	tca@dwaf.pwv.gov.za
Northwest Northern Western Cape	N. Swiegelaar	012 - 338 7508	012 - 323 0321	tcd@dwaf.pwv.gov.za