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Water Risks in the Mining Sector South Africa¹

As of April 2016

1. Overview of legal system in South Africa

South Africa has a mixed legal system, comprised of several legal traditions, including civil law based on Roman-Dutch law and common law inherited from the British. Indigenous or customary law can also be invoked by some people on certain matters (mainly on marriages, succession, guardianship and land tenure), provided these are consonant with the Constitution. South Africa is a federal state with three-levels of government: the national, provincial and local levels. The national and provincial levels have concurrent competence to regulate the environment, nature conservation, and pollution control. The national, provincial and local levels have competence to regulate water and sanitation services and air pollution, although the local government is given the primary responsibility. Mining is regulated at the national level.

Please see the Annexures for a description of the relevant legislation and institutions regulating water use.

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2. Regulation of water use in the mining sector in South Africa

| Water Quantity questions | | |
|--------------------------|--|--|
| No | Question | Answer |
| 1. | Which authority is responsible for water allocation? | DWS |
| 2. | Water allocation process - How is water granted to a mining concessionaire/ permit holder? Is there a water licensing/ permitting process? A water market? | A separate water license must be obtained from the DWS. |
| 3. | Scope of a water allocation permit/ license | |
| | (a) Requirements separate water permit – is a separate water permit required? What is the process for obtaining the permit | <p>Yes, a separate water license from the DWS is required.</p> <p>Before getting a license, the mine must register with the applicable Regional Office of the DWS for water use if it does not receive water from a service provider, local authority, water board, irrigation board, government water scheme or other bulk supplier.</p> <p>After registration, the license application must be filed in the DWS Regional Office. The procedure for obtaining the license is as follows:</p> <p>Step 1 - Pre-position and validation. The application is checked for completeness and the applicant may get initial feedback before payment of the application fee.</p> <p>Step 2 - Initial assessment and grouping. There will be a quick assessment of the possible impacts and benefits of the proposed water use using a simple questionnaire.</p> <p>Step 3 - Regional Assessment. The regional office gathers all the information required to make a decision on whether to approve the application, and</p> |



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| | | <p>makes a recommendation to the national office.</p> <p>Step 4 - Evaluation by the National Office. The application is forwarded to the national office and is evaluated by specialist groups. These groups also make recommendations on the application. The application is then submitted to the Chief Director: Water Use for a decision.</p> <p>Step 5 - Decision by the Chief Director: Water Use. The Chief Director: Water Use will make a decision on whether to approve the application.</p> <p>Step 6 - Implementation. The Regional Office will be informed of the decision. It will then inform the applicant of the outcome of the application, and, if the application was approved, the Regional Office will issue the license.</p> |
| | <p>(b) Time required to obtain permits – how long does it generally take?</p> | <p>The licensing process can take three to twelve months, depending on the complexity of the license.</p> |
| | <p>(c) Duration of water permit</p> | <p>A water license can be issued for a period not exceeding forty years.</p> |
| | <p>(d) process for permit renewal</p> | <p>The application for renewal must be submitted and the processing fee must be paid before the expiration of the license. The procedure for approval of the renewal is the same as the procedure for initial application.</p> |
| 4. | <p>How does the process of securing a water allocation relate to the general mining permit approval process (i.e. is a water permit required before a mining permit, or is information about water use required for an EIA which is required for a mining permit)?</p> | <p>A water license is not required before the issuance of a mining permit. However, a full water monitoring report must be included in the environmental management programme, which is a requirement for the issuance of a mining permit.</p> |
| 5. | <p>Tariffs for water use</p> <p>Do mines have to pay for water usage? If yes, who sets the tariffs?</p> | <p>Yes. The DWS sets the tariffs for water use.</p> |



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| 6. | Requirements for recycling water | Regulation 704 requires mines to recycle water used in any process or activity as far as practicable. |
| 7. | What rights, if any, does the relevant Authority have to change the amount of water allotted to a mine? Is the mining company allowed compensation for such changes? | The DWS can alter the amount of water allocated to mines if there is insufficient water in the water resource to accommodate all authorized water uses and if there are changes in socio-economic circumstances. If the mine suffers severe economic prejudice because of the amendment, the mine will be entitled to compensation. The propriety and amount of compensation will be determined by the Water Tribunal. |



3. Regulation of water quality and waste water discharge in mining in South Africa

| Water Quality questions | | |
|-------------------------|---|--|
| No | Topic | Answer |
| 1. | <p>Requirements for a permit for mine waste discharge</p> <p>Does a mine have to apply for a permit to discharge waste/ waste water into surrounding water courses? If so, what permits are required? What is the permitting process?</p> | <p>Yes. DWS also regulates discharge of water containing waste.</p> <p>The mine must register with the Regional DWS for any discharge of water containing waste into a water resource. It will receive a Certificate of Registration as a water user. The registered user is subject to the General Authorisation. If the mine does not meet the requirements of the General Authorisation either in terms of the volume or in terms of the quality of the discharge, it must apply for a license to discharge.</p> <p>The process for obtaining a license to discharge wastewater is the same as the process for obtaining a water license, as set forth above.</p> |
| 2. | <p>Other licensing/permitting processes that cover water quality/discharge</p> | <p>A Waste Management License (WML) issued by the Minister of Mineral Resources is required for the management of residue stockpile and residue deposit. The application requires a basic environmental impact assessment (EIA) if the waste is generated from prospecting or activities requiring mining permits and a full scoping and EIA if the waste is generated by activities requiring a mining right, exploration right.</p> |
| 3. | <p>Nexus with environmental impact assessments/ statements</p> <p>What is the process for obtaining an environmental impact assessment? At which stage of the mining process must it be obtained? To what extent are water issues covered in it?</p> | <p>The environmental impact assessment is embedded in the mining right application process. After filing of the application for a mining right and payment of the requisite fee, both of which must be done online, the regional manager of the Department of Mineral Resources will require the owner to conduct and environmental impact assessment, submit an environmental management programme and conduct the consultations with interested and affected parties. The Minister of Mineral Resources</p> |



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| | | <p>will grant the mining right if all the foregoing requirements are satisfactorily met.</p> <p>Applicants for mining permits and prospecting rights are required to submit environmental management plans, although the MPRDA does not state that they need to conduct an EIA. In any case, NEMA requires a basic assessment report for prospecting, exploration, extraction and primary processing of a mineral resource or activities directly related thereto.</p> <p>A full water monitoring report must be included in the environmental management programme.</p> |
| 4. | Are there regulations regarding the storage of tailings/ waste water by mines? ² | The Mineral and Petroleum Resources and Development Regulation prohibits the establishment of sand dumps or slimes dams on the bank of any stream, river, dam, pan, wetland or lake without written permission of the Minister of Mineral Resources. |
| 5. | Acid mine drainage regulations | There are no specific regulations on acid mine drainage. However, the provisions under NWA, MRPDA and NEMA on environmental damages may apply to acid mine drainage liabilities. |
| 6. | Recycling requirements – Are there any requirements/ incentives for mines to recycle water/ minimize water discharge? | Regulation 704 requires mines to recycle water used in any process or activity as far as practicable. |
| 7. | Any specific regulation of waste for copper and/or gold mining? | None |

² Tailings are crushed rock particles that are transported hydraulically in a slurry form to a tailing impoundment or storage facility. The tailing solids are a mixture of sand, silt, and clay size particles. Tailings are sent to a tailing impoundment for disposition.



4. Monitoring requirements

| General questions | | |
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| No | Question | Answer |
| 1. | Who monitors a mining operation's water quality to ensure compliance with legislation? And how often does such monitoring occur? | The mine owner is responsible for monitoring water resources, in accordance with its water resource monitoring plan, which is submitted together with the water use license application. |
| 2. | Are there any reporting requirements? | None |

5. Regulation of water issues related to post-mine closure

| Post-mine closure questions | | |
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| No | Question | Answer |
| 1. | Requirements for closure | |
| | (a) Closure plan: What are the requirements for a closure plan?? Who approves it, if anybody? | <p>The closure plan is a component of the environmental management plan/programme, which is required before a mineral permit/right is issued by the DMR.</p> <p>The closure plan must contain the following:</p> <p>(a) a description of the closure objectives and how these relate to the prospecting or mine operation and its environmental and social setting;</p> <p>(b) a plan showing the land or area under closure;</p> <p>(c) a summary of the regulatory requirements and conditions for closure negotiated and documented in the environmental management programme/plan, as the case may be;</p> <p>(d) a summary of the results of the environmental risk report and details of identified residual and latent impacts;</p> <p>(e) a summary of the results of progressive rehabilitation undertaken;</p> |



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| | | | <p>(f) a description of the methods to decommission each prospecting or mining component and the mitigation or management strategy proposed to avoid, minimize and manage residual or latent impacts;</p> <p>(g) details of any long-term management and maintenance expected;</p> <p>(h) details of a proposed closure cost and financial provision for monitoring, maintenance and post closure management;</p> <p>(i) a sketch plan drawn on an appropriate scale describing the final and future land use proposal and arrangements for the site;</p> <p>(j) a record of interested and affected persons consulted; and</p> <p>(k) technical appendices, if any.</p> |
| | | <p>(b) Bond requirements</p> | <p>The mine owner must, before the approval of the environmental management plan or programme, make the prescribed financial provision for the rehabilitation or management of negative environmental impacts. The mine owner must annually assess its environmental liability and increase the financial provision to the satisfaction of the Minister of Mineral Resources. If the Minister is not satisfied, he may appoint an independent assessor to conduct the assessment and determine the financial provision.</p> <p>The financial provision can be in the form of (a) a contribution to a trust fund, (b) a financial guarantee from a bank or financial institution, or (c) a deposit into an account specified by the Minister of Mineral Resources.</p> |
| | | <p>(c) Water quality/ Tailings dam requirements</p> | <p>The closure certificate will not be issued unless the Chief Inspector and the DWS have confirmed in writing that the provisions pertaining to health and safety and management of potential pollution to water resources have been addressed.</p> <p>The NWA also requires the person who owns, controls, occupies, or uses land on which an activity was performed that has caused pollution of a water resource to remedy the</p> |



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| | | | effects of the pollution and remedy the effects of any disturbance to the bed and banks of a watercourse. |
| 2. | Post-mine closure monitoring requirements | | None |
| 3. | Liability period - For how long, if at all, is a mine liable for water contamination after a mine has closed? | | <p>The MPRA states that the mine owner remains responsible for any environmental liability, pollution or ecological degradation only until the issuance of the closure certificate.</p> <p>Even after the issuance of the closure certificate, the Minister of Mineral Resources may retain any portion of the financial provision discussed above for latent and or residual environmental impact which may become known in the future.</p> |
| 4. | Are there any reporting requirements in relation to a mine's preparation for post-closure? | | None |



6. Enforcement/ Regulatory actions

| General questions | | |
|-------------------|---|--|
| No | Topic | Answer |
| 1. | Enforcement actions available to the government/ public authorities/ citizens take for breach of any of the relevant laws/ regulations | <p>Criminal, civil and administrative actions against mining companies for environmental damages are available under NWA, NEMA and MPRDA.</p> <p>Ultimately communities and both juristic and natural persons can defer to common law remedies such as delictual claims to get redress and compensation for pecuniary and non-patrimonial damages arising from mining activities downstream.</p> |
| 2. | Bodies responsible for regulatory enforcement and associated procedures | DWS, DMR |
| 3. | Is there an online database of penalties/fines related to water use in the mining sector? | There is no official online database. However, the Centre for Environmental Rights, a non-profit company and law clinic in South Africa, compiled a list of offenses related to the environmental impacts of mining, with their respective penalties, here . |
| 4. | What is the procedure for bringing a case? | <p>In criminal cases, anyone can instigate a case against mining companies by approaching the state to investigate. If there is a prima facie case, National Prosecuting Authority will prosecute the mining company under South Africa's Criminal Procedure Act of 1977.</p> <p>An action that arises directly from the NWA would generally be brought before the Water Tribunal especially if it is of an administrative nature. If the action arises out of a statute such as the NEMA and is of a criminal nature, a high court having a jurisdiction over the area within which the action arose shall preside over the case. Similarly, actions based on the common law will be adjudicated upon by High Courts.</p> |



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| 5. | Who has standing to bring a case? | <p>Anyone can instigate a criminal case against mining companies for violations of environmental laws.</p> <p>Section 32(1) of the NEMA also grants standing to mining communities and/or enterprises who live downstream a river and are affected by polluted water to institute civil class actions against mines.</p> <p>Section 45 of the MPRDA grants the Minister of Mineral Resources a locus standi to bring an ex parte application against a mine allowing him/her to dispose of a mine's assets in order to realize finances to institute an environmental reclamation process in cases of mine closure or abandonment.</p> <p>The NWA in section 19(3) also grants the relevant Minister to issue directives against offending mines. These directives can be enforced by the Water Tribunal.</p> |
| 6. | Statute of limitations | <p>Criminal actions may not be instituted after the lapse of 20 years from the time the offence was committed.</p> <p>Most civil actions, including delicts (torts), must be brought within three years from the date the cause of action arose.</p> |



Annexures

A. Legislation (policies, laws, and regulations) governing water issues in the mining sector in South Africa

| No. | Name of Legislation | Brief description of how it applies |
|-----|--|--|
| 1. | Constitution of the Republic of South Africa Act 108 of 1996 | The South African Constitution is the supreme law of the land. Section 24 entrenches a right to a clean environment. Mining and water legislation with a bias towards environmental protection is derived from the constitutional obligation to provide such an environment. The Constitution also enshrines a right to clean water. |
| 2. | Promotion to Access of Information Act of 2000 | This piece of legislation allows interested stakeholders to force mining companies to release necessary information regarding their operations. |
| 3. | National Water Act of 1998 | <p>This is the main instrument regulating water usage including mine water use in South Africa. Any discussion of mining water use in South Africa has to begin by analyzing this very important piece of legislation.</p> <p>Its purpose is to ensure that South Africa's water resources are protected, used, developed, conserved, managed and controlled in a sustainable and equitable manner, for the benefit of all people.</p> |
| 4. | Water Services Act 1997 (Act 108 of 1997) | <p>The Act prescribes the legislative duty of municipalities as water service authorities to provide water supply and sanitation according to national standards and norms.</p> <p>It also regulates water boards as important water service providers and gives the executive authority and responsibility to the Minister of Water Affairs to support and strengthen the capacity of municipalities to manage their own affairs, exercise their powers and perform their functions. The Water Services Act of 1997, places an obligation on the Minister to maintain a National Water Services Information System and to monitor the performance of all water services institutions.</p> |
| 5. | National Environmental Management Act 1998 | The NEMA regulates environmental protection and preservation issues within South Africa across a broad spectrum including mining. |



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| 6. | <p><u>Mineral and Petroleum Resources Development Act 2002</u></p> <p><u>Mineral and Petroleum Resources Development Regulations</u></p> | <p>All mining activity regulation including licensing is regulated by the MPRDA. Water licensing occurs under the NWA. Environmental regulation is catered for by the NEMA. Efforts are underway to integrate the regulation of the three aspects of mining.</p> |
| 7. | <p><u>Regulation on Use of Water for Mining and Related Activities Aimed at the Protection of Water Resources</u> (Regulation 704 of 1999)</p> | <p>Regulation 704 details the regulatory framework governing water quality in mine usage. It requires mines to recycle water to the extent possible.</p> |
| 8. | <p><u>National Water Policy</u></p> | <p>The National Water Policy is underpinned by three fundamental principles for managing water resources: equity, (environmental) sustainability and efficiency.</p> |
| 9. | <p><u>National Environmental Management Waste Act 2008</u></p> | <p>The NEMWA requires a waste management license for residue deposits and residue stockpile, which include wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals.</p> |
| 10. | <p><u>Regulations Regarding the Planning and Management of Residue Stockpiles and Residue Deposits</u></p> | <p>This regulates the planning and management of residue stockpiles and residue deposits from a prospecting, mining, exploration or production operation.</p> |
| 11. | <p><u>General Authorisation</u></p> | <p>The authorization states the permitted uses of water for which a license is not required.</p> |
| 12. | <p><u>Regulations pertaining to the Financial Provision for the Rehabilitation, Closure and Post Closure of Prospecting, Exploration, Mining or Production Operations</u></p> | <p>This regulates the method for determining and making the financial provision for the costs associated with the management of environmental impacts from prospecting, exploration, mining or production operations through the life of mine and that may become known in the future.</p> |



B. List of authorities involved in the regulation of water issues in the mining sector in South Africa

| No. | Name (In English and local language) | Brief description of its role |
|------------|--|--|
| 1. | Department of Water and Sanitation (DWS) (formerly Department of Water Affairs) | The department is responsible for the regulation of water use in South Africa by ensuring that water is allocated equitably and used beneficially in the public interest, and is also required to create a register of all water users in the country. |
| 2. | Water boards | The primary activity of water boards is to provide water services (bulk potable and bulk waste water) to other water services institutions within their respective service areas. They may perform other activities under conditions set out in the Water Services Act, 1997. In certain situations, the Minister of Water Affairs may direct water boards to amend their business plans to meet all the requirements of the Water Services Act, 1997. There are nine water boards in South Africa. |
| 3. | Catchment management agencies (CMAs) | The main responsibilities of CMAs are to manage water resources at catchment level in collaboration with local stakeholders, with specific focus on involving local communities in the decision-making processes, in terms of meeting basic human needs, promoting equitable access to water, and facilitating social and economic development. In essence, CMAs are service-delivery agencies and are listed in the Public Finance Management Act, 1999 (Act 1 of 1999). There are nine CMAs in South Africa. |
| 4. | Water-user associations (WUAs) | WUAs are cooperative associations of individual water users who wish to undertake water-related activities at local level for their mutual benefit. They operate in terms of a formal constitution as set out in Schedule 5 of the National Water Act, 1998. |
| 5. | Water Tribunal | The Water Tribunal was established in 1998 to hear appeals against directives and decisions made by responsible authorities, CMAs or water management agencies about matters covered by the National Water Act of 1998, such as |



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| | | <p>the issuing of licenses to use water. It is an independent body and can hold hearings anywhere in the country.</p> <p>The WRC and the Judicial Services Commission recommend people to be included as members of the Water Tribunal, and the Minister of Water and Sanitation appoints them. The members have to be familiar with water management, engineering, law and other related matters, and they are given administrative support by the department.</p> |
| 6. | Department of Mineral Resources (DMR) | <p>The Minister of Mineral Resources issues mining rights, prospecting rights and mining licenses, and approves environmental authorisations for related activities.</p> |