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LEGAL RESTRICTIONS ON MINING IN STRATEGIC WATER SOURCE AREAS

Submitted in partial fulfilment of the requirements for the degree of

Master of Laws by Coursework and Research Report

at the University of the Witwatersrand, Johannesburg

By

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Date: 31 MARCH 2025

DECLARATION

I, Xolani Ndlovu declare that this report is my own, unaided work. It is submitted in partial fulfilment of the requirements for the degree of Master of Laws in the field of Commercial and Business Law at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any other degree or examination in any other university.

I have submitted my final Research Report through TurnItIn and have attached the report to my submission.

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ABSTRACT

Existing research shows that strategic water source areas ('SWSAs') are not properly protected in law. SWSAs supply water to roughly half of South Africa's population, and support two thirds of national activity, approximately 70% of irrigated agriculture and more than 90% of urban consumers' drinking water needs. Formally protecting SWSAs is vital to secure the quantity and quality of South Africa's water, but the ecological integrity of these areas are threatened by numerous land-based activities, including mining. The aim of the report is to first, highlight the strategic importance of SWSAs to the country's water security, and then, second, to examine how existing legal frameworks provide for restrictions on mining. This is done by looking at specific legislation concerned with mining and the environment, namely the National Environmental Management: Protected Areas Act, Mineral and Petroleum Resources Development Act, National Environmental Management Act and the National Water Act. The ministers have generally not used their powers prescribed by the aforementioned pieces of legislation to pass regulations in order to protect SWSAs. Targeted legislation that is specific and nuanced to SWSAs needs to be passed to protect SWSAs and thereby secure the nation's water security.

LIST OF ACRONYMS AND ABBREVIATIONS

CMAS	Catchment management agencies.
DFFE	Department of Forestry, Fisheries and the Environment.
DMR	Department of Mineral Resources.
MTSF	Medium-Term Strategic Framework.
MPRDA	Mineral and Petroleum Resources Development Act 28 of 2002.
MOA	Mountain Land Owners Association.
MTPA	Mpumalanga Tourism and Parks Agency.
NEMA	National Environmental Management Act 107 of 1998.
NEMPAA	National Environmental Management: Protected Areas Act 57 of 2003.
NWA.	National Water Act 36 of 1998.
NWRS	National Water Resource Strategy.
OEMS.	One Environmental System.
RM.	Regional Manager.
SWSAs	Strategic Water Sources Areas.
SDGs	Sustainable Development Goals.
WSA	Water source area.
WUL	Water Use Licence.
WULA	Water Use Licence Application.

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I INTRODUCTION

Protecting the sources of where our water comes from is not only an environmental issue but a socio-economic one too, as aptly captured by section 24 of the Constitution, 1996. This is particularly true of Strategic Water Sources Areas ('SWSAs') which are areas of land that produce disproportionately greater volumes of water in relation to their size.[1] Water resources in South Africa are still distributed unevenly and or unequally because of the nation's tumultuous political history.[2] Degradation and pollution of SWSAs will further exacerbate this already prevalent issue, notwithstanding that the inequality gap continues to widen. Existing research shows that SWSAs are not properly protected in law.[3] It is perhaps comforting to recognise that challenges related to water availability and quality will not be exclusive to the poor, however, they will disproportionately bear the brunt of these challenges. It is therefore imperative that we formally and legally protect our sources of water to secure the quality and quantity of our water for the benefit of all.

The case of *Endangered Wildlife Trust v Director General, Department of Water and Sanitation*[4] ('*Endangered Wildlife Trust case'*) confirmed that no law has been passed that protects SWSAs, beyond a mention in the second edition of the *National Water Resource Strategy II* ('*NWRS II'*).[5] There have been further discussions surrounding the protection of SWSAs since then. For example the *National Water Resource Strategy* III, 2023 ('*NWRS III')* recognises the importance of SWSAs as deserving of legal protection.[6] Similarly the National Water Amendment Bill (B-2023) aims to protect SWSAs.[7] To date, however, no official legislation has been formally enacted to specifically protect SWSAs. The *Endangered Wildlife Trust* case shows that because of the lack of legislation protecting SWSAs, it is impossible to

[1] <https://cer.org.za/wp-content/uploads/2017/11/CER_Water-Source-Book_WEB-Version.pdf>.
[2] G Viljoen, J Moolman, N Oliver 'Critical reflections on existing lawful water uses (ELUs) in South African water law' (2024) 54 *African Journals Online* 319.
[3] A Mkhonza 'Improving the legal protection of strategic water source areas: a South African perspective' in PK Mbote, AR Paterson, OC Ruppel, BB Orubebe, EDK Yogo (eds) Law| Environment| Africa (2018) 453, 456.
[4] *Endangered Wildlife Trust and Others v Director-General, Department of Water and Sanitation* (PT) unreported case no WT 03/17 MP of 22 May 2019.
[5] Nino Rhodda *The Legal protection of Strategic Water Source Areas in South Africa* (unpublished LLM thesis, University of the Witwatersrand, 2021) 22.
[6]<https://www.dws.gov.za/Documents/Gazettes/Approved%20National%20Water%20Resource%20Strategy%20Third%20Edition%20(NWRS3)%202023.pdf >.
[7] National Water Amendment Bill [B-2023].

enforce the protection of these regions against the threat of mining and or any other threats for that matter.[8] The primary focus of this report is to highlight the strategic importance of SWSAs and examine the extent to which existing legal frameworks protect SWSAs from mining activities with the intention of providing recommendations to the gaps identified in order that our nation's water quantity and quality is conserved. The basis of this discussion is the environmental right provided for in section 24 of the Constitution and particularly section 24(b) requiring the state to take positive steps in order to realize the right. Section 24 states that everyone has the right to:

> a) an environment that is not harmful to their health or well-being; and
>
> b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that:
>
> (i) prevent pollution and ecological degradation;
>
> (ii) promote conservation; and
>
> (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.[9]

In the case of *Trustees for the time being of Groundwork Trust v Minister of Environmental Affairs*[10] ('*Groundwork case'*), which focused on whether 'unsafe levels of ambient air pollution' breached the environmental right, the court found in favour of the applicants, the court affirmed and clearly established that the right to an environment that is not harmful to health or well-being is immediately realisable.[11] Although the court in the *Groundwork case* did not explicitly differentiate between section 24(a) and section 24(b), it could perhaps be inferred that they implicitly differentiated the two subsections because they specifically dealt with section 24(a) to the exclusion of section 24(b). This report shares the view

[8] *Endangered Wildlife Trust and Others v Director-General, Department of Water and Sanitation* (PT) unreported case no WT 03/17 MP of 22 May 2019.
[9] The Constitution of the Republic of South Africa, 1996.
[10] *Trustees for the time being of Groundwork Trust v Minister of Environmental Affairs* Pretoria High Court: Gauteng Division (unreported case number 39724/2019) [2022] ZAGPPHC 208 (18 March 2022).
[11] Ibid paras 156-156, 163.

that is held by other authors i.e that section 24 must be read as a whole and not in separate parts. Humby argues that section 24 is an 'integrated, multi-dimensional socio-economic right delimited by ecological and development thresholds' and that understanding section 24 as two separate rights is incorrect. This is because:

> Its realisation requires integrated positive and negative conduct on the part of the State and a whole host of other players around development and environment at multiple spatial and temporal scales. Section 24 does not give rise to a right to development and/or a right to environment. It is integrated and multi- dimensional in its initial conception, enshrining a right to development-in-environment, to the kind of development that responds to critical socio-economic needs whilst maintaining ecological integrity.[12]

Therefore, this report accepts that the section 24 right to environment is as a whole immediately realisable here and now, and that it serves as the basis for the protection of SWSAs against mining activities.[13]

The overview of the research report is as follows: Section II will discuss the importance of SWSAs with reference to science based research. Section III discusses the recognition of SWSAs in South African law and policy with reference to government reports and court cases. Section IV examines the legal provisions that permit mining in SWSAs in particular the mining license process and its requirements. Section V explores the potential mechanisms which could be used to protect SWSAs with reference to legislation relevant in mining and water use. Section VI provides recommendations and concludes the paper.

II THE IMPORTANCE OF PROTECTING STRATEGIC WATER SOURCE AREAS

(a) Value of SWSAs

A substantial quantity of our country's water ('surface water') flow from 22 catchment areas found across five provinces.[14] These 22 catchment areas are the core of our water supply because

[12] T Humby 'The right to development-in-environment and its ecological and developmental thresholds' (2016) 32 *South African Journal on Human Rights*, 219, 229.
[13] Ibid 233.
[14] <https://cer.org.za/wp-content/uploads/2017/11/CER_Water-Source-Book_WEB-Version.pdf>.

they make up '8% of the country's landscape' yet they provide 50% of surface run off (i.e. freshwater).[15] These areas are vital for South Africa's economy and water security, they have therefore been recognised as 'Strategic Water Source Areas' (SWSAs).[16] SWSAs on a national scale supply water to 'approximately half of South Africa's population, and support two thirds of national activity, approximately 70% of irrigated agriculture and more than 90% of urban consumers' drinking water needs.'[17] However, there is no specific legislation to protect SWSAs from invasive land use such as mining, plantations, fracking and cultivation amongst others. We can therefore deduce that the health of our natural systems is paramount and our water supply depends on it. Mkhonza asserts that 'providing adequate legal protection of our SWSA's is a constitutional obligation'.[18] This paper considers what legal mechanisms can be put in place to protect SWSAs from mining.

The need to protect SWSAs must be viewed in the context of South Africa's water security. South Africa is considered to be a dry country, when ranked globally.[19] It receives 'less than half of the global average annual rainfall' and therefore is considered a 'water scarce country'.[20] Water is a resource we cannot do without. We can better meet our needs if we maintain the ecological integrity of our SWSAs.[21] The influence of climate change on rainfall reliability and predictability will make this even more crucial.

Protecting SWSAs is also about protecting ecological infrastructure and ecosystem services. SWSAs are 'national ecological infrastructure assets' that are crucial for ensuring water security, which supports national building objectives like equitable growth, job creation, and poverty reduction.[22] Stats SA defines ecological infrastructure as 'naturally functioning ecosystems that generate or deliver valuable services and benefits to people and the economy'.[23] Further, 'water related ecological infrastructure includes wetlands, rivers, riparian areas and

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[15] <https://cer.org.za/wp-content/uploads/2017/11/CER_Water-Source-Book_WEB-Version.pdf>.
[16] Statistics South Africa *Accounts For Strategic Water Source Areas, 1990 to 2020 Discussion Document D0401.3* (March 2023).
[17] Statistics South Africa *Safeguarding Everydrop: Profiling South Africa's Strategic Water Source Areas* (2023).
[18] < https://www.news.uct.ac.za/article/-2019-03-27-protecting-the-heart-of-south-africas-water-supply >
[19] <https://www.csir.co.za/strategic-water-source-areas-combining-surface-and-groundwater-enhance-water-security>.
[20] Nino Rodda *The Legal protection of Strategic Water Source Areas in South Africa* (unpublished LLM thesis, University of the Witwatersrand, 2021).
[21] Statistics South Africa *Accounts For Strategic Water Source Areas, 1990 to 2020 Discussion Document D0401.3* (March 2023) 2.
[22] Ibid.
[23]Ibid.

SWSA's and their corresponding catchments, which contribute to the production of clean water, flood moderation, prevention of erosion and drought resilience'.[24] Similarly to civil infrastructure it is crucial to take care of and safeguard nature based infrastructure to stave off degradation.[25] As South Africa comes to grips with water insecurity and climate change it is all the more necessary to invest in ecological infrastructure.[26]. In other countries such as the USA; protecting the Catskills water source area; in Brazil, rehabilitating and protecting the Tijuca forest was done to protect water resources in order to secure water supply.[27] Arguably one of the best investment methods would be to promulgate legislation that specifically protects, conserves and manages SWSAs. As a water scarce country, South Africa substantially depends on SWSAs to meet its water needs for the current and future generations.

The advantages of safeguarding water source areas lie in sustaining ecosystems' ability to regulate water quality and availability in the long term, allowing downstream users to enjoy ecosystem services.[28] Ecosystem services include supplying water for household and commercial use, this includes regulating services such as the natural dilution of waste, alongside cultural services .[29] These ecosystem services lead to a myriad of gains, e.g. lower water treatment expenses and better health, and as a result leads to improvement of wellbeing.[30] Although SWSAs make up a small portion of land, they provide large volumes of water to the neighbouring regions. The decline of 'quality and quantity in water source areas can have a 'disproportionately large impact on downstream users' who may be far out. Because of this gap between source and use, decision-makers and users frequently aren't aware of all the 'socio-ecological effects of development' in these places.[31] Establishing a clear link between the supply and use of ecosystem services can bridge the gap and promote the protection of water source areas.[32]

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[24] Statistics South Africa *Accounts For Strategic Water Source Areas, 1990 to 2020 Discussion Document D0401.3* (March 2023) 2.
[25] Ibid i.
[26] Ibid.
[27] JL Nel, DC Le Matre, DJ Roux, C Colvin, JS Smith, LB Smith-Adao, A Maherry & N Sitas 'Strategic water source areas for urban water security: Making the connection between protecting ecosystems and benefiting from their services' (2017) 28 *Elsevier* (251).
[28] Ibid 252.
[29] Ibid.
[30] Ibid.
[31] Ibid.
[32] Ibid.

Socio-economic activities in SWSAs can significantly affect the ecological state of these regions and their water related ecosystems. A number of factors, including pollution, erosion, urbanisation and agriculture can influence the volume and quality of water that these ecosystems supply. preserving these places in a mostly 'natural or semi-natural state' is crucial to maintaining the health of water related ecosystems and consequently SWSAs. Furthermore, it is important to make sure that the way land, rivers and wetlands are used and managed in SWSAs doesn't affect their capacity to supply water.[33]

(b) Initiatives to protect SWSAs

Initiatives such as the '2030 Agenda for Sustainable Development' which is a global initiative endorsed by all United Nations Member States in September 2015.[34] The agenda comprises 17 Sustainable Development Goals (SDGs), each targeting different social, economic, and environmental challenges, all with the goal of fostering a more sustainable and equitable world by 2030.[35] SDG 6 and 15 are of particular relevance because they include pledges to protect and restore water-related ecosystems and their services.[36] All member states including South Africa must create national development plans outlining how they will play their part in achieving these targets.[37] Drawing a link between SWSAs and downstream users allows for a comprehensive evaluation of various development strategies and their effects on urban water systems.[38]

South Africa is also part of the 'Kunming-Montreal Global Biodiversity Framework' popularly known as '30x30'. The 30x30 initiative refers to a 'global conservation goal that aims to protect 30% of the Earth's land and water by the year 2030'.[39] This initiative is part of broader efforts to address biodiversity loss, protect ecosystems, and promote sustainable development. The idea is

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[33] Statistics South Africa *Accounts For Strategic Water Source Areas, 1990 to 2020 Discussion Document D0401.3* (March 2023).
[34]<https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>.
[35]<https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>.
[36]<https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>.
[37] Nel et al (note 31 above) 252.
[38] Ibid.
[39]<https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>.

to safeguard natural habitats, preserve biodiversity, and guarantee the ongoing delivery of ecosystem services essential for human well-being. The 30x30 initiative supports SDGs and expands on the Convention on Biological Diversity's former work. 30x30 has 23 targets to be achieved by 2030, which also serve as a springboard to achieve goals for 2050. Amongst the 23 targets, target 2 and 3 are of relevance to this discussion. In terms of target 2, by 2030, at least 30% of degraded ecosystems must be restored to improve biodiversity, ecosystem functions and services, ecological integrity, and connectivity. Similarly, target 3 aims to 'ensure that by 2030, 30% of terrestrial and inland water areas, and of marine and coastal areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are conserved and managed'.[40]

(c) Partial protection of SWSAs

The South African Protected Areas database tracked the proportion of each protected SWSA. In 2020, 18,9% of the land in SWSAs was protected. SWSAs that had the highest proportion protected, were also 'SWSAs with the highest proportion of natural or semi-natural land cover.'[41] Generally, when land cover falls to a level where it makes up less than 60% of a landscape or catchment, ecological functioning may start to fail.[42] Current research from SWSA data shows that natural or semi-natural land cover has declined by 60% in 3 SWSAs which suggest that ecosystems in these areas are under pressure and a further 5 SWSAs are close to the threshold putting their ecological integrity at risk.[43] Findings from *Accounts For Strategic Water Source Areas* indicate that in 2020, the extent of SWSAs preserved in a 'natural or semi natural' condition was 68,7%.[44]

The mining legislation, regulating the mining sector in protected areas and protected environments under the National Environmental Management: Protected Areas Act 57 of 2003

[40]<https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>.

[41] Statistics South Africa *Accounts For Strategic Water Source Areas, 1990 to 2020 Discussion Document D0401.3* (March 2023.
[42] Ibid.
[43] Ibid.
[44] Statistics South Africa *Safeguarding Everydrop: Profiling South Africa's Strategic Water Source Areas* (2023).

(NEMPAA), Mineral and Petroleum Resources Development Act 28 of 2002 ('MPRDA'), National Environmental Management Act 107 of 1998 ('NEMA') and the National Water Act 36 of 1998 ('NWA') collectively provides partial protection of SWSAs. The NWA, in particular, plays a critical role in terms of regulating water use and should include the protection of vital ecological areas such as SWSAs. However, SWSAs face unresolved ambiguities, primarily stemming from their lack of express formal legal protection under existing legal frameworks. Additionally, challenges arise from competing land uses, including mining amongst others which threaten their ecological integrity. These issues underscore the urgent need for targeted legislative and policy reforms to protect these critical areas. Exactly how the existing legal frameworks provide partial legal protection will be discussed further in the Report with reference to the case of *Mpumalanga Tourism and Parks Agency v Barberton Mines (Pty) Ltd ('Baberton case')*[45] and *Mining and Environmental Justice Community of South Africa v MEC for Agriculture, Rural Development, Land and Environmental Affairs* ('Mejcon case').[46]

III RECOGNITION OF SWSAS IN SOUTH AFRICAN LAW AND POLICY

Notwithstanding the lack of formal legal protection as SWSAs, the concept has entered South African law and policy. As outlined above, there has been extensive scientific research conducted on the importance and benefits of SWSAs independently and through environmental non-government organisations. Based on the scientific research, environmental lawyers have also advocated for government to promulgate laws that will formally protect SWSAs. The Water Research Commission backed up these efforts urging the minister of water and sanitation to protect SWSAs. Be that as it may, there is still no specific and formal legal protection for SWSAs and thus bringing forward a legal challenge against activities threatening SWSAs is difficult.

Such difficulty was evident in the case of *Endangered Wildlife Trust,* where the Water Tribunal discussed the significance of SWSAs as a consideration when evaluating Water Use

[45] *Mpumalanga Tourism and Parks Agency v Barberton Mines (Pty) Ltd* 2017 (5) SA 62 (SCA).
[46] Mining and Environmental Justice Community of South Africa and Others v MEC for Agriculture, Rural Development, Land and Environmental Affairs (1322/2021) [2024] ZAMPMBHC 48 (18 July 2024)

Licence Applications ('WULA') in instances of intended mining activities in the Mabola Protected Environment ('MPE'.[47]

The Enkangala Drakensberg SWSA is located in the MPE in Mpumalanga. As a consequence of SWSAs not being recognised in law, the Water Tribunal found that 'SWSAS are not a relevant factor to consider when deciding on a WULA'.[48] This decision can be criticised on the basis that in the past the court has ruled a factor as relevant even though it was not made explicit in law such as in the case *Earthlife Africa Johannesburg v Minister of Environmental Affairs,* where the court found that 'climate change impacts' was a relevant factor when deciding on an environmental authorisation application.[49] Similarly in the case of *Trustees of the Groundwork Trust v Acting Director General: Department of Water and Sanitation*, the court considered 'climate change impacts' as 'a relevant factor' in the WULA process although not listed as relevant factor in the NWA.[50] The decision in the *Endangered Wildlife Trust* case*,* highlights the Water Tribunal's failure to protect SWSAs and it also brings to the fore the undisputable need to formally protect SWSAs. In the case of *Fuel Retailers Association of SA (Pty) Ltd v Director General, Environmental Management, Mpumalanga*, Ngcobo CJ aptly explained the role of the courts and held that:

> The role of the courts is especially important in the context of the protection of the environment and giving effect to the principle of sustainable development. The importance of the protection of the environment cannot be gainsaid. Its protection is vital to the enjoyment of other rights contained in the Bill of Rights; indeed it is vital to life itself. It must therefore be protected for the benefit of the present and future generations.[51]

[47] *Endangered Wildlife Trust and Others v Director-General, Department of Water and Sanitation* (PT) unreported case no WT 03/17 MP of 22 May 2019.
[48] *Endangered Wildlife Trust and Others v Director-General, Department of Water and Sanitation* (PT) unreported case no WT 03/17 MP of 22 May 2019. para 73.2.
[49] Eart*hlife Africa Johannesburg v Minister of Environmental Affairs* (65662/16) [2017] ZAGPPHC 58; [2017] 2 All SA 519 (GP) (8 March 2017).
[50] *Trustees for the time being of Groundwork Trust v Minister of Environmental Affairs* Pretoria High Court: Gauteng Division (unreported case number 39724/2019) [2022] ZAGPPHC 208 (18 March 2022).
[51] *Fuel Retailers Association of Southern Africa v Director-General: Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province 2007* (6) SA 4 (CC) para 102.

Over the past years, the idea of SWSAs has become increasingly popular and has been incorporated into various national policies and frameworks. The Department of Forestry, Fisheries and the Environment (DFFE) has included a target in its Medium-Term Strategic Framework (MTSF) related to securing SWSAs. The target aims to improve the capacity of SWSAs in delivering maximum quantity of good quality fresh water for people, economic activity, and ecosystems, both within and downstream of SWSAs.[52] This is to be done in a way that helps assure efficient, equitable, and sustainable water supply and access to water for everyone.[53] In order to help achieve this target, DFFE has identified a number of mechanisms that can help secure SWSAs. These mechanisms include formal protection, proper management of water resources, proper land-use planning, environmental authorization procedures, and ecosystem restoration when necessary.[54] However, the *Mabola* case shows that mere discussion will do little to advance the protection on SWSAs. Discussion on protecting SWSAs has been on-going for years and action has not been taken to date.

The Department of Water and Sanitation has prioritized measures related to SWSAs in the *National Water Resource Strategy III (NWRS III).* SWSAs are recognized by the *NWRS III* as 'strategic national assets that are vital for water security and need to be acknowledged as such at the highest level across all sectors'.[55] One of the NWRS' strategic objectives includes 'To rehabilitate and protect ecological infrastructure, including Strategic Water Source areas'.[56] In order to accomplish the goals the NWRS 3 provides actions to be taken including, identifying and using 'legal mechanisms to protect strategic water source areas'.[57] It emphasizes that 'investing in SWSAs is crucial for long-term adaptation to the effects of climate change on water

[52] <https://www.dpme.gov.za/keyfocusareas/outcomesSite/MTSF_2019_2024/2019-2024%20MTSF%20Comprehensive%20Document.pdf>.
[53] <https://www.dpme.gov.za/keyfocusareas/outcomesSite/MTSF_2019_2024/2019-2024%20MTSF%20Comprehensive%20Document.pdf>.
[54] Statistics South Africa Accounts For Strategic Water Source Areas, 1990 to 2020 Discussion Document D0401.3 (March 2023) 2.
[55]<https://www.dws.gov.za/Documents/Gazettes/Approved%20National%20Water%20Resource%20Strategy%20Third%20Edition%20(NWRS3)%202023.pdf >.
[56]<https://www.dws.gov.za/Documents/Gazettes/Approved%20National%20Water%20Resource%20Strategy%20Third%20Edition%20(NWRS3)%202023.pdf >.
[57]<https://www.dws.gov.za/Documents/Gazettes/Approved%20National%20Water%20Resource%20Strategy%20Third%20Edition%20(NWRS3)%202023.pdf >.

provision growth and development' and that effective management of SWSAs can result in significant improvements in terms of water quality and quantity.[58]

IV LEGAL PROVISIONS PERMITING MININING IN SWSAS

The first element of the enquiry into the protection of SWSAs from mining activities is to examine the legal authorities that permit mining to take place in SWSAs. This requires examining the processes and thresholds for issuing mining rights, environmental impact assessments and water use licenses to mining proponents, allowing them to mine in SWSAs

The process of obtaining a mining license is governed primarily by the MPRDA. This statute aims to see to it that the minerals of the country are 'developed and used sustainably'.[59] The state is the 'custodian of the nation's mineral resources',[60] as the custodian, the state through the minister may 'grant, issue, refuse, control, administer and manage any prospecting right, mining right or mining permit'.[61] The minister is required to secure the sustainable development of South Africa's mineral resources in accordance a framework of national environmental policy, norms and standards.[62] The MPRDA does not act in isolation, it works in conjunction with other statutes, relevant to this discussion is NEMA and its suite of environmental legislation.

Mining, prospecting or conducting any 'activity incidental thereto in any area without an environmental authorisation',[63] 'prospecting right, mining right or mining permit as the case may be is illegal'.[64] There are different types of mining licenses depending on the activity one may wish to embark on. A prospecting right permits exploration to determine if minerals exist in a particular area, a mining permit is required for small scale operations, and a mining right is for large and longer term mining operations.

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[58] <https://www.dws.gov.za/Documents/Gazettes/Approved%20National%20Water%20Resource%20Strategy%20Third%20Edition%20(NWRS3)%202023.pdf >.
[59] Section 2(h) of MPRDA.
[60] Section 3(1) of MPRDA.
[61] Section 2(a) of MPRDA.
[62] Section 3 of MPRDA.
[63] Section 5A(a) of MPRDA.
[64] Section 5A(b) of MPRDA.

(a) Prospecting right, mining license and mining permit

The process for applying for a prospecting right is set out in section 17 of the MPRDA. It outlines the requirements and conditions under which the Minister of Minerals and Energy can approve or deny an application for a prospecting right. An environmental authorization application must be submitted to the Regional Manager's ('RM') office at the same time with the prospecting right application.[65] If the RM accepts the application, then the RM must inform the applicant to provide the necessary environmental reports as outlined in Chapter 5 of NEMA and to engage in consultation with interested and affected parties.[66] Upon receipt of an application from the RM, the Minister in terms of section 17(1) must grant a prospecting right if the applicant, a) has access to financial resources, technical ability to conduct the proposed prospecting operation, b) the estimated expenditure is compatible with the proposed operation and c) the prospecting will not result in unacceptable pollution, ecological degradation or damage to the environment and an environmental authorisation is issued.[67] It is essential to recognize that section 17(1)(c) is the most critical criterion. Given the vital role SWSAs play in water security, SWSAs should be a material consideration in deciding whether prospecting or mining is 'unacceptable'. Ultimately, the consensus should be that if prospecting or mining falls within a SWSA**,** the section 17(1)(c) requirement is not satisfied. There is therefore a need for both legislative amendments and jurisprudential development to affirm that the mere fact of an area being an SWSA should, by default, weigh heavily in assessing whether proposed prospecting constitutes an 'unacceptable' impact under section 17(1)(c). Such an approach would ensure that decision-makers explicitly integrate water security concerns into mining governance, reinforcing a precautionary and sustainable interpretation of the principles of NEMA.

If an application does not satisfy all the requirements of s17(1), the minister must decline to grant a prospecting right.[68] A prospecting right is valid for 5 years,[69] A prospecting right holder possesses the exclusive right to apply for, and to be awarded, a mining right in relation to the relevant mineral and designated property area.[70]

[65] Section 5A(c) of MPRDA.
[66] Section 16(4) of MPRDA.
[67] Section 17(1) of MPRDA.
[68] Section 17(2) of MPRDA.
[69] Section 17(6) of MPRDA.
[70] Section 18 of MPRDA.

The application process for a mining right is the same as for a prospecting right, however, it is prescribed by sections 22 and 23 of the MPRDA. If the mining right holder meets legislation requirements as per section 24, the mining right may be renewed for additional periods each not exceeding 30 years at a time. My recommendation is that there should be a requirement for another environmental authorization because 30 years is a long time and a lot can happen during that time including change in the geology of the environment, thereby necessitating another environmental authorisation.

If the mineral in question can be mined as efficiently as possible within two years and the mining area is no larger than five hectares, a mining permit may be granted under section 27.[71] An environmental authorization application must be submitted concurrently with a mining permit application [72] If requirements as per section 27 are met then the minister must issue a mining permit. A mining permit is valid for 2 years and is renewable 3 times for periods not exceeding one year.[73] Oddly, when applying for a mining permit the 'unacceptable pollution' criterion as provided for in prospecting and mining right applications in terms of s17(1)(c) and section 23(1)(d) does not apply. It is important to note that the impacts of mining on the environment do not change by virtue of the mine period being 2 years (of which it can be renewed) or the land mined on being less than 5 hectares. The impact of mining on SWSAs regardless of these irrelevant differences mentioned above remain dire.

(b) Environmental Impact Assessment

Section 5A of the MPRDA states that 'no person may prospect, mine or conduct any operations incidental to mining without an environmental authorisation'.[74] Similarly, sections 17, 22 and 27 require an environmental authorisation before an application can be granted a prospecting right, mining license or mining permit. Section 38A of the MPRDA directs us to the NEMA and states that 'the minister ("Minister of Minerals and Energy") is the responsible authority for implementing environmental provisions of the NEMA'.[75] The environmental authorization process for prospecting or mining right applications is regulated under Chapter 5 of NEMA. The

[71] Section 27 of MPRDA.
[72] Section 27(5) MPRDA.
[73] Section 27(8) MPRDA.
[74] Section 5A of MPRDA.
[75] Section s38A of MPRDA.

principles outlined in NEMA apply to and guide all actions of organs of state that may affect the environment. The principles must also serve as a general framework within which the environmental management and implementation plans must be formulated.[76] Section 2(3)states that 'development must be socially, environmentally and economically sustainable'.[77] Section 2(4) goes further to expand and states that 'sustainable development requires the consideration of all relevant factors' including the following:

> That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;[78] that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;[79] that the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised;[80] that a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions;[81] and that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied. [82]

In addition to the application of the NEMA principles, the minister may designate some activities that cannot be conducted without an environmental authorization from the appropriate body. Initial compliance with these requirements is assessed by the Department of Mineral Resources ('DMR'), while appeals against such decisions are directed to the Minister of Environmental Affairs.[83] Prospecting and mine closure require a basic assessment process under the EIA regulations, while mining requires a scoping and environmental impact reporting process. Section 38A(1)of the MPRDA states that the 'minister is the responsible authority for implementing environmental provisions in terms of the NEMA', as it relates to prospecting, mining, exploration, production or activities incidental thereto on a prospecting, mining, exploration or production area, while section 38A(2) states that an environmental authorisation

[76] Section 2 of NEMA.
[77] Section 2(3) of NEMA.
[78] Section 2(4)(i) of NEMA.
[79] Section 2(4)(ii) of NEMA.
[80] Section 2(4)(vi) of NEMA.
[81] Section 2(4)(vii) of NEMA.
[82] Section 2(4) (viii)of NEMA.
[83] NEMA

issued by the Minister shall be a condition prior to the issuing of a permit or the granting of a right in terms of this Act.[84]

(c) One environmental management system

Section 163A of the NWA and section 50A of NEMA provides for the One Environmental System ('OEMS'). The OEMS aims to streamline the environmental management of mining by addressing fragmented and conflicting legislative frameworks. The system shifted 'statutory authority' for environmental regulation of mining from the MPRDA to NEMA and introduced amendments to consolidate processes, ensuring mining complies with environmental requirements without duplicative authorizations.[85] The Minister of Environmental Affairs is responsible for establishing the regulatory framework, while the Minister of Mineral Resources is tasked with implementing NEMA and its related legislation in the context of prospecting, exploration, mining, and related operations. The Minister responsible for mineral resources issues environmental authorisations and the Minister responsible for environmental affairs is the appeal authority for these authorisations.

The OES aims to reconcile South Africa's economic reliance on mining with its constitutional obligation to protect the environment. It recognizes the need for sustainable mining practices while addressing potential ecological degradation. It allows for the minister responsible for environmental affairs to restrict mining activities in ecologically sensitive areas. However, concerns remain about whether it sufficiently empowers environmental authorities over mining interests.[86] Challenges persist, particularly due to the distinct and often conflicting mandates of the DMRE and DFFE. The DMRE's main focus is on fostering economic growth through mineral development, whereas the DFFE's responsibility is centred on managing, protecting, and conserving South Africa's environmental and natural resources.[87]

In addition to the environmental assessment process, the NEMA vests the minister for environment with a range of powers that could be used to protect SWSAs. In terms of section 24 (2)(a) 'the minister may prohibit or restrict the granting of an environmental authorisation by the competent authority for a listed or a specified activity in a specified geographical area for such

[84] Section 38A of NEMA.
[85] TL Humby 'One environmental system : aligning the laws on the environmental management of mining in South Africa' (2015) 33 *Journal of Energy & Natural Resources Law* 110.
[86] Ibid.
[87]< https://www.ensafrica.com/news/detail/8446/almost-10-years-since-the-rollout-of-the-one->.

period and on such terms and conditions as the minister may determine, if it is necessary to ensure the protection of the environment, the conservation of resources or sustainable development'. [88] This power by the minister can be used to restrict mining in SWSAs thereby ensuring the legal protection of SWSAs .

The minister of environmental affairs , or an MEC may prepare information and mapping that detail environmental attributes of specific geographic regions, including their sensitivity, scope, interconnection, and importance, which must be considered by all competent authorities in decision-making. [89] As noted above, the research and mapping of SWSAs has been done, all the minister now needs to do is to actually formally declare SWSAs as geographical areas in which restricted activities may not commence.

A key distinction lies in the decision-maker. In a standard application, decisions are made by a DMR official whose primary role is to promote and support mining activities. In contrast, under a section 48(2) decision, the responsibility falls to the minister of Environmental Affairs, whose primary focus is on conservation.[90] In a standard application, the environmental authorization process primarily focuses on identifying measures to mitigate environmental harm. Although applications may occasionally be rejected outright due to environmental sensitivity, such instances are rare.[91] The DMR is generally hesitant to deny mining licenses and operates on the assumption that all impacts can be mitigated.

The case of *Mining and Environmental Justice Community Network of South Africa v Minister of Environmental Affairs* (Mejcon) highlighted the concerns noted above about the OES. In this case the minister of environmental Affairs and the minister of minerals authorised Atha Africa , a mining company to mine within the MPE.[92] The MPE was declared as such in 2014 because it is an indispensable critical biodiversity area comprising of wetlands and grasslands. The Enkangala SWSA also falls within the MPE which provides and contributes to the overall water supply of the country. The concern was thus that the mine cannot operate without dewatering activities. The court held that amongst other requirements in order for a party

[88] Section (2A) of NEMA.
[89] Section 24(3) of NEMA.
[90] < https://cer.org.za/wp-content/uploads/2019/10/Annexure-L_-Mining-within-Protected-Environments-FINAL-1.pdf >.
[91] < https://cer.org.za/wp-content/uploads/2019/10/Annexure-L_-Mining-within-Protected-Environments-FINAL-1.pdf >.
[92] *Mining and Environmental Justice Community Network of South Africa and Others v Minister of Environmental Affairs and Others* [2019] 1 All SA 491 (GP).

to conduct mining activities in a protected area (the court used the word area and environment interchangeably, which is also a concern) written permission form the ministers of environmental Affairs and mineral resources must be obtained as per section 48 of NEMPAA. When considering a request for such permission, the ministers, as custodians of the protected environment, shall apply rigorous scrutiny, ensuring that the interests of local communities and the environmental principles outlined in Section 2 of NEMA are duly considered. [93] Ultimately the ministers did not comply with section 48 of NEMPAA and the court set aside the decisions.

Another case where mining interests were placed above environmental concerns and protection was in the case of '*Mining and Environmental Justice Community Network of South Africa v MEC for Agriculture, Rural Development, Land and Environmental Affairs'* ('Mabola case').[94] In this case the applicants sought to set aside the MEC for Environmental Affairs' decision to exclude four properties from the MPE in order to authorise coal mining in the MPE. The court held that the decision by the MEC was a usurpation of the Environmental Affairs minister and the minerals minister powers and further the MEC failed to consider the available science policy and law regarding the protection of the MPE.[95] Further the MEC was under an obligation to follow the NEMA principles as well as consider the precautionary principle.[96] Section 48 of NEMPAA specifically requires written permission from said ministers when a party seeks to mine in a protected environment. The Court also found that the decisions by the minister were unlawful because they circumvented the Mejcon decision (above).[97]

V POTENTIAL PROTECTION MECHANISMS FOR SWSAs

As noted above, SWSAs are not formally protected in law. There are however, certain provisions which may be used by the ministers of the relevant departments to offer protection. This can be done by listing mining as an activity which may not be carried out in SWSAs or by listing SWSAs as areas where mining may not be carried out. Further, SWSAs are sometimes protected

[93] Mejcon (Note 48 above) para 10.
[94] Mining and Environmental Justice Community of South Africa and Others v MEC for Agriculture, Rural Development, Land and Environmental Affairs (1322/2021) [2024] ZAMPMBHC 48 (18 July 2024).
[95] Ibid.
[96] Ibid.
[97] Ibid.

by default because they may exist in an area that is protected by NEMPAA. This section will discuss ways which existing legal provisions may offer protection to SWSAs with reference to the NWA, Amendment Bill, NEMPAA and the MPRDA.

(a) National Water Act

The NWA aims to protect, develop, conserve and manage the nation's water resources. The Act also aims to use and manage water in ways which address the essential water needs of present and future generations; ensure fair access to water; preserve aquatic ecosystems and their biodiversity; and mitigate and prevent the pollution and deterioration of water resources.[98] For the benefit of everyone and in compliance with its constitutional mission, the minister, as the public trustee of the country's water resources, must make sure that water is preserved, developed, conserved, managed, and controlled in a sustainable and fair manner.[99] Given their ecological significance, failing to prioritize SWSAs in water governance undermines the Minister's constitutional duty to protect water for present and future generations. If these areas are compromised by activities such as mining and unchecked development, the long-term security of South Africa's water supply is put at risk,

The minister must develop a National Water Resource Strategy and the country's water resources must be protected, used, developed, conserved, managed and controlled in terms of the Strategy.[100] The National Water Resource Strategy is expected to explain the Minister's plans, goals, and methods—along with how different institutions will work together—to guide how water resources are protected, used, developed, preserved, managed, and controlled.[101] As noted above, *NWRS III* specifically refers to SWSAs.

Water use is only permitted if it complies with the provisions authorised in the Act.[102] The main water uses associated with mining include, amongst others, 'taking water from a water resource; impeding or diverting the flow of water in a watercourse; discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit;

[98] Section 2 of NWA.
[99] Section 3 of NWA.
[100] Section 5 of NWA.
[101] Section 6 of NWA.
[102] Chapter 4 of NWA

disposing of waste in a manner which may detrimentally impact on a water resource; altering the bed, banks, course or characteristics of a watercourse; and removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people.'[103]

Currently, the NWA makes no mention of SWSAs and only provides one real possible option to protect SWSAs.[104] In terms of section 26 of NWA, 'the minister may make regulations regulating or prohibiting any activity in order to protect a water resource or instream or riparian habitat'.[105] Amongst others, the minister when making regulations should take into account 'all relevant considerations including the need to conserve and protect water resources or, instream and riparian habitat'.[106] These regulations have not been enacted and we therefore do not know the nature and extent of protection they may offer. It is bizarre that the NWA is South Africa's main water management legislation, however does not protect SWSAs.

Although perilous, there are three other options which may be explored in the NWA to protect SWSAs. The first is by defining and regulating watercourses through licensing.[107] Generally, when licenses are granted they carry conditions attached to them. Conditions ensure that the licensee exercises a duty of care and does not pollute watercourses and therefore watercourses that are part of SWSAs will be protected through the licensing system.[108] It is important to distinguish watercourses from SWSAs, even though watercourses form part of SWSAs. SWSAs are strategic because of how they disproportionately contribute to the country economically, socially and environmentally. Additionally, their physical characteristics also include non-watercourse natural features like mountains and forests. Therefore, relying solely on watercourse regulation to protect SWSAs is both inadequate and very limited.

Second, in terms of section 38 the minister may 'regulate activities having a detrimental impact on water resources by declaring them to be controlled activities'.[109] Four such activities have already been identified in section 37, that is 'irrigation using waste or water containing waste from certain sources, modification of atmospheric precipitation, altering the flow regime of a

[103] Section 21 of NWA.
[104] Mkhonza (note 3 above) 459.
[105] Section 26(1)(g) of NWA.
[106] Section 26(4)(b) of NWA.
[107] Mkhonza (note 3 above) 460.
[108] Ibid.
[109] Section 38(1) of NWA.

water resource as a result of power generation and aquifer recharge using waste or water containing waste'.[110] Before an activity can be declared a 'controlled activity', the Minister must first be convinced that it is likely to have a harmful effect on a water resource.[111] The list has not been extended since the Act came into effect. Furthermore, SWSAs have different threats and therefore require nuanced protection.[112]

A final option is that where SWSAs are present, catchment management agencies (CMAs) that oversee WMAs may also oversee SWSAs. But this would not be the best approach due to the national significance of these areas and the challenges CMAs have faced in exercising their powers, as they have been undermined and crippled in recent years[113]. CMAs powers are assigned and/or delegated before they are exercised, in the past the minister has revoked powers that had been assigned or delegated.[114]

(b) National Water Act Amendment Bill 2023 ('Amendment Bill')

The Amendment Bill aims to bring some changes in protecting water source areas. The scientists who identified and delineated SWSAs define and make distinction between 'water source areas' and 'SWSAs'. Water source areas are defined as 'places or areas, such as water catchments, which produce disproportionately greater volumes of water per unit area than other areas'.[115]

As noted above, SWSAs are defined as 'areas of land that either: (a) supply a disproportionate (i.e. relatively large) quantity of mean annual surface water runoff in relation to their size and so are considered nationally important; or (b) have high groundwater recharge and where the groundwater forms a nationally important resource; or (c) areas that meet both criteria (a) and (b).' [116]

[110] Section 37 of NWA.
[111] Section 38(2) of NWA.
[112] Mkhonza (note 3 above) 460.
[113] Ibid.
[114] Ibid 461.
[115] Le Maitre, D.C., Seyler, H., Holland, M., Smith-Adao, L., Nel, J.L., Maherry, A. and Witthüser, K. (2018) Identification, Delineation and Importance of the Strategic Water Source Areas of South Africa, Lesotho and Swaziland for Surface Water and Groundwater. Report No. TT 743/1/18, Water Research Commission, Pretoria 56
[116] Le Matre et all (note 112 above) iv.

Interestingly the Amendment Bill has defined water source areas as - 'all land and aquifers which form the original collection point, and provide above average amounts of water to the rest of South Africa's water resources, and which meet significant social, economic and environmental water requirements'.[117] The Amendment Bill does not feature SWSAs in its definitions. This is huge oversight and does not solve and or address water security appropriately. SWSAs are important to water security because of their strategic nature.

There must be no ambiguity, the definition should be clear and precise. The definitions sections in the Amendment Bill should include SWSAs. SWSAs have been scientifically delineated already, hence the legislation should link to this scientific work. Certain activities i.e mining should be right prohibited in SWSAs. Whereas in WSAs the decision can be left to the ministers discretion because they don't have the strategic importance nationally.

Chapter 3A addresses the protection of WSAs. Part 1 deals with the geographical aspect/location of water sources. WSAs should be identified in terms of the proposed section 20A, and as such as per section 20A(1) the minister must publish a list of scientifically identified water source areas and attach a map, indicating a) the geographical location of each water source areas and b) the major threats faced by each water source area. Further in section 20A(2) the minister is given powers to amend the list if circumstances that led to identification of the water source areas have changed. This provision is worrying because it may lead to arbitrary de-proclamation of WSAs. Section 20A(3) prescribes time frames: within three years after commencement of the chapter, the minister must publish 'regulations for the management of activities within and around water source areas'.[118] The regulations must specify a) 'activities which are prohibited from being conducted in and around water source areas and b) activities which are restricted when being conducted in and around water source areas'.[119]

In terms of the Amendment Bill the minister may issue out regulations within three years after commencement of Act. This report submits that three years is too long to wait for regulations. Scientific research on SWSAs has already been carried out therefore 6 months will suffice. In addition, as it stands the department is inundated with mining applications in

[117] National Water Amendment Bill [B-2023].
[118] Ibid.
[119] Ibid.

SWSAs, these areas need urgent and expeditious attention and the threat to the survival of these vital areas is imminent and ongoing. It needs to be stopped immediately.

Part 2 of section 20 addresses general prohibitions and restrictions within WSAs. Specifically, it prohibits both open-cast and underground mining. Section 20B(1) explicitly prohibits these forms of mining where they may cause acid rock drainage or acid mine drainage, especially in Water Source Areas that are at risk from or sensitive to mining activities.[120] Section 20B(2) prescribes the minister to regulate the review of water use licenses granted for mining activities contemplated in subsection (1), before this chapter commenced.[121] In terms of section 20B(3), the responsible authority is not permitted to grant a water use licence for any activity listed under Section 21 that involves open-cast mining within a designated water source area. In addition, under Section 18E, the Minister has the authority to impose prohibitions or restrictions on other potential threats to water source areas, provided it serves the public interest.[122] This section could be potentially used to restrict mining specifically on SWSAs and not just on WSAs.

(c) National Environmental Management: Protected Areas Act

The NEMPAA recognizes various types of protected areas, each serving distinct conservation objectives. Section 9 provides for the following kinds of protected areas – '(*a*) special nature reserves, national parks, nature reserves, (including wilderness areas) and protected environments; (*b*) world heritage sites; (*c*) marine protected areas; (*d*) specially protected forest areas, forest nature reserves and forest wilderness areas; and (*e*) mountain catchment areas'.[123] Note that protected areas include protected environments. A protected environment means – 'a) an area declared, or regarded as having been declared, in terms of section 28 as a protected environment; b) an area which before or after the commencement of this Act was or is declared or designated in terms of provincial legislation for a purpose for which that area could in terms of section 28(2) be declared as a protected environment; or c) an area which was a lake area in

[120] National Water Amendment Bill [B-2023].
[121] Ibid.
[122] Ibid.
[123] Section 9 of NEMPAA.

terms of the Lake Areas Development Act'.[124] A protected environment is a subset of a protected area.

Section 28 lists instances whereby an area may be declared as a protected environment which includes to 'protect an area if the area is sensitive to development due to its provision of environmental goods and services'.[125] This section aptly captures the appropriateness of SWSAs being considered as a protected environment because they fulfil the criteria needed for an area to be declared as such. However the Minister has not used his powers to do this.

Section 45 restricts access to special nature reserves. No individual is permitted to enter, live in, or carry out any activity within a special nature reserve, unless it is for official purposes, to monitor the area for conservation or for research and related purposes. Special nature reserves have superior protection when compared to other protected areas.

Section 46 restricts access to national parks, nature reserve and world heritage site. Although the access is limited in these areas, it may be granted. In terms of section 46(1), no person may enter or reside in the park or site without the written permission of the management authority of the park.[126] Officials, a holder of a vested right or a person travelling by train provided they stay on the train or within the boundaries of the railway station do not need to get such permission.[127]

Section 48 restricts prospecting and mining and or activities incidental thereto in three categories. The first, restriction is in special nature reserves, national parks and nature reserves which serves as a confirmation of sections 45 and 46. Although section 46 did not outright mention a restriction on activities, whereas section 45 outright restricts the performance of any activity.

The second restriction is in a protected environment, the caveat here is that if one obtains written permission from the minister then one can actually conduct prospecting, mining and any activities incidental to mining.[128]

The third restriction, restricts mining in a protected area referred to in section 9 (b), (c), or (d), that is world heritage sites, marine protected areas, specially protected forest areas, forest

[124] Section 1 of NEMPAA.
[125] Section 28 of NEMPAA.
[126] Section 46 of NEMPAA
[127] Section 46 of NEMPAA.
[128] Section 48(b) of NEMPAA.

nature reserves and forest wilderness areas. The effect of these restrictions leave protected environments and mountain catchment areas out in the cold and unprotected.

Where a party wishes to apply for permission to prospect or mine in a protected environment section 48(4) requires that, upon receiving an environmental authorisation under NEMA, the party must immediately submit their application along with all relevant information—such as reports, studies, and records and consultation—conducted as part of the environmental impact assessment process under Chapter 5 of NEMA; as well as any appeal filed against the environmental authorisation.[129]

In terms of section 48(5)(a) the minister when exercising his powers and considering the 'written permission' as directed by s48(1)(b) must take into account the principles outlined in NEMA, any information, reports, studies conducted or consultation done for the environmental impact assessments process in respect of the activities under consideration in terms of chapter 5 of NEMA, any appeal in respect of the environmental authorisation and the ecological integrity of the protected environment.[130] By contrast section 48(5)(b) lists factors the minister may take into account which include the potential impact on ecological functioning and ecosystem services provided by the protected environment to society; whether the protected environment is a biodiversity priority area for species; and whether the protected environment is a strategic water resource area.[131]

Section 48(5)(b) is wholly inadequate and very underwhelming. While the recognition of SWSAs in law appears progressive, its practical impact is uncertain, as it fails to guarantee consistent protection against environmentally harmful activities such as mining in SWSAs. Although section 48(5)(b) lists SWSAs as a factor to consider, the use of the word 'may' is ambiguous and lacks the necessary obligation that 'must' would impose and thereby weakens the enforceability of the provision. The use of the word 'may' suggests that the provision is discretionary as opposed to mandatory. This will undoubtably result in inconsistent application or lack of compliance. It is thus difficult to view the inclusion of SWSAs in legislation as a meaningful step forward. The use of the word 'may' is troublesome. As a result, while the

[129] Section 48 of NEMPAA. At this juncture, I will briefly point out that when I initially embarked on conducting this research report, ss 4 merely said 'When applying this section, the Minister must take into account the interests of local communities and the environmental principles referred to in section 2 of NEMA' and there was no ss5. The amendments represent promising development in our water laws.
[130] Section 48(5)(a) of NEMPAA.
[131] Section 48(5)(b) of NEMPAA.

recognition of SWSAs in law appears progressive, its practical impact is uncertain, as it fails to guarantee consistent protection against environmentally harmful activities such as mining. The word 'may' in this instance should be replaced with the word 'must' which will enforce obligation and ensure compliance.

It is deeply troubling and unacceptable that the legislature deliberately chose to maintain this ambiguity, despite the clear precedent set in the *Endangered Wildlife Trust* case, where the court dismissed without qualification, SWSAs as a relevant factor in WULA decisions. While SWSAs are now acknowledged in the legislation, their protection remains purely discretionary—rendering their inclusion meaningless in practice.

According to section 17 of NEMPAA, the purposes of declaring areas as protected areas include areas assisting in ensuring the sustained supply of environmental goods and services.[132] As outlined above, SWSAs clearly provide these environmental goods and services. SWSAs are ecologically critical areas that provide essential water resources to major economic and population centres. Protecting them under NEMPAA aligns with the purpose of maintaining ecological integrity by ensuring that mining and other activities do not degrade water quality, soil stability, and biodiversity. Many SWSAs contain wetlands, rivers, and groundwater recharge zones, which are habitats for diverse ecosystems. Conservation of biodiversity in these areas prevents habitat destruction and species loss. SWSAs are highly vulnerable to pollution, over-extraction, and land degradation, therefore desperately requires legal protection. Mining in or near SWSAs poses a direct risk through acid mine drainage, water contamination, and ecosystem disruption. The sensitivity of these areas means that even small-scale disturbances - such as mining by way a mining permit – can have long-term consequences for water security. SWSAs provide a continuous supply of freshwater, which is an essential environmental service for human consumption, agriculture, and industry. Protecting these areas would therefore align with NEMPAA's objective of securing environmental goods and services, ensuring that future generations have access to clean water resources. Without protection, degradation of SWSAs could lead to reduced water availability, increased treatment costs, and ecological collapse.

A strong argument can therefore be made to declare SWSAs as protected areas. The protected area status would provide for a firmer protection because it is not qualified, whereas

[132] Section 17 of NEMPAA.

protected environments are qualified in that a party who wants to carry out mining activities in a protected environment may do so with the permission from the minister.

(d) Mineral and Petroleum Resources Development Act

Section 48 of the MPRDA speaks to the restriction or prohibition of prospecting and mining on certain land. Section 48(1) states that 'subject to section 48 of the NEMPAA and subsection (2), no reconnaissance permission, prospecting right, mining right may be granted or mining permit be issued in respect of (a) land comprising a residential area; (b) any public road, railway or cemetery; (c) any land being used for public or government purposes or reserved in terms of any other law; or (d) areas identified by the Minister by notice in the *Gazette* in terms of section 49'.[133]

However, a reconnaissance permission, prospecting right, mining right or mining permit may be issued in respect of the land contemplated in subsection 1 if the minister is satisfied that it aligns with sustainable development of mineral resources and serves the national interest, the mining activities will comply with national environmental management policies, norms, and standards and existing rights holders (such as those with prospecting or mining rights) will not be negatively affected.[134] In terms of section 49(1), subject to subsection (2) the minister has the authority to prohibit or restrict the granting of reconnaissance permissions, prospecting rights, mining rights, or mining permits by issuing a notice in the Gazette. This decision is made after consulting relevant stakeholders and considering the national interest, the strategic importance of the mineral the need for sustainable development of mineral resources.[135] Furthermore, the minister may prohibit or limit mining activities on specific land for a set period and under specific conditions.[136] The minister may restrict the granting of rights or permits for specific minerals or classes of minerals for a defined period and under certain terms.[137]

Protected areas are a key component of South Africa's conservation strategy.[138] The Government aims to enhance the management of existing protected areas while expanding the

[133] Section 48 of MPRDA.
[134] Section 49 of MPRDA.
[135] Section 49 of MPRDA.
[136] Section 49 of MPRDA
[137] Section 49 of MPRDA.
[138] A Paterson 'Mining in nature reserves – providing partial legal certainty where ambiguity prevailed' (2018) 29 *Stellenbosch Law Review* 199.

proportion of the country's land and marine territories included in the protected areas estate.[139] Recognizing that certain activities can severely compromise the conservation objectives of these areas, the Government has introduced prohibitions on such activities within specific categories of protected areas.[140] Notably, prospecting and mining activities are prohibited within nature reserves.[141]

Section 48(2) of the MPRDA creates potential conflict with NEMPAA, as it allows mining in protected areas under certain conditions. However, section 7 of NEMPAA is clear in that it states if there is conflict between NEMPAA and any other legislation then NEMPAA should prevail.

But the practical implementation of these legal provisions have encountered significant challenges, leading to numerous court disputes such as Barberton Mines' attempt to conduct prospecting activities within the Barberton Nature Reserve in Mpumalanga ('*Mpumalanga Tourism and Parks Agency v Barberton Mines (Pty) Ltd* 2017 (5) SA 62 (SCA)'). In *Barberton*, the dispute arose in 2006 when Barberton Mines received a prospecting right from the Department of Mineral Resources ('DMR'), despite objections from the Mpumalanga Tourism and Parks Agency ('MTPA') and the Mountain Land Owners Association ('MOA;').[142] Thereafter, the MTPA and MOA refused to grant Barberton Mines access the reserve, arguing that mining was prohibited under NEMPAA.[143]

The matter first went to the High Court which found for Barberton Mines, however on appeal the SCA overturned the High Court judgement. Barberton Mines then appealed the SCA decision, however, the Constitutional Court dismissed Barberton Mines' attempt to appeal, agreeing with the SCA that the case had no chance of success. The Court upheld the SCA's decision, confirming that the Barberton Nature Reserve, which was established in 1985 for conservation purposes, is legally recognized as a nature reserve under the NEMPAA.[144]

Under NEMPAA, prospecting and mining are not allowed in nature reserves, and this ruling helped clarify the legal status of conservation areas created by provincial laws before

[139] A Paterson 'Mining in nature reserves – providing partial legal certainty where ambiguity prevailed' (2018) 29 *Stellenbosch Law Review* 199.
[140] Ibid.
[141] Ibid.
[142] *Trustees for the time being of Groundwork Trust v Minister of Environmental Affairs* Pretoria High Court: Gauteng Division (unreported case number 39724/2019) [2022] ZAGPPHC 208 (18 March 2022).
[143] Ibid.
[144] Ibid.

NEMPAA came into effect. This issue had caused confusion, especially around whether mining could take place in such areas.[145] This decision has also made it clear that mining is not allowed within nature reserves, that is, protected areas.

VI RECOMMENDATIONS AND CONCLUSION

This research report recommends that first and foremost, the term 'strategic water source areas' should appear in environmental legislation that concerns mining and water, particularly in the definitions sections of the NWA, NEMA, MPRDA and NEMPAA. Second, the listed prohibited activities list in so far as mining and water is concerned should include mining, and geographical areas or 'no go zones' should include SWSAs – this is clear in that listed activities i.e mining is prohibited in specified geographical areas or 'no go zones' i.e SWSAs. Third, NEMPAA should be amended to include SWSAs as a distinct category of protected areas and not simply as protected environments. SWSAs should also be expressly excluded from the mining minister's discretion to grant permission to mine in protected areas under section 48(1)(b) of NEMPAA. It should be clear that if mining falls within a SWSA then no permission may be sought and or granted. Fourth, in the WULA add an extra layer of protection specifically for mining applicants and particularly if proposed prospecting and or mining is to take place in a SWSA. Essentially a WUL may not be granted in SWSAs. Fifth, there should be significant penalties in the form of fines and imprisonment for contravening the environmental legislation in so far as protection of SWSAs are concerned. The proposed penalties by the Amendment Bill are welcome in that liability falls onto directors, and the company. The Ministers and all those involved in the decision for granting a water use licence and or mining right, mining permit, prospecting right to an entity within a SWSA should face harsh penalties. Fines should then be used directly on rehabilitation of SWSAs and thereafter derelict mines.

In conclusion, this research report has highlighted the significance of SWSAs in so far as our country's water security is concerned. Scientific background was provided as to why they need to be protected from threats such as mining. Current legal mechanisms which may be used to protect SWSAs were explored, however it is clear that they have not been utilised effectively.

[145] *Mpumalanga Tourism and Parks Agency v Barberton Mines (Pty) Ltd* 2017 (5) SA 62 (SCA).

Mining and prospecting in protected areas is not outright prohibited under South African law. While the legislation contains certain restrictions – most notably in the NEMPAA and MPRDA – they also allow for discretion in granting permission to prospect and mine under certain circumstances in protected environments. Protected environments, while offering some level of protection, remain vulnerable due to legal loopholes and the discretionary powers vested in the minister. This reflects a broader challenge in reconciling conservation objectives with economic activities like mining. For SWSAs, which are not formally protected under NEMPAA, the situation is even more precarious. Given the critical role SWSAs play in South Africa's water security and ecosystem health, their current level of protection is inadequate. Strengthening the legal and policy frameworks to formally recognize and robustly protect SWSAs is essential to ensure these vital areas are protected against mining and other potentially harmful activities. The protection, conservation and management of SWSAs needs to be nuanced and specific, because threats towards SWSAs are not all the same.

BIBLIOGRAPHY

Cases

Earthlife Africa Johannesburg v Minister of Environmental Affairs (65662/16) [2017] ZAGPPHC 58; [2017] 2 All SA 519 (GP) (8 March 2017).

Endangered Wildlife Trust and Others v Director-General, Department of Water and Sanitation and Another (PT) unreported case no WT 03/17 MP of 22 May 2019.

Fuel Retailers Association of Southern Africa v Director-General: Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province, and Others 2007 (6) SA 4 (CC).

Mining and Environmental Justice Community Network of South Africa and Others v Minister of Environmental Affairs and Others [2019] 1 All SA 491 (GP).

Mining and Environmental Justice Community of South Africa and Others v MEC for Agriculture, Rural Development, Land and Environmental Affairs (1322/2021) [2024] ZAMPMBHC 48 (18 July 2024).

Mpumalanga Tourism and Parks Agency v Barberton Mines (Pty) Ltd 2017 (5) SA 62 (SCA).

Trustees for the time being of Groundwork Trust v Minister of Environmental Affairs Pretoria High Court: Gauteng Division (unreported case number 39724/2019) [2022] ZAGPPHC 208 (18 March 2022).

Trustees of the Groundwork Trust v Acting Director - General: Department of Water and Sanitation (WT06/11/2015) [2020] ZAWT 1 (21 July 2020)**.**

Books/ Chapters in books

Mkhonza, Amanda „Improving the legal protection of strategic water source areas: A South African perspective" in Kameri-Mbote P, Paterson A, Ruppel O, Orubebe B & Kam Yongo (eds) Law | *Environment* | *Africa – Publication of the 5th Symposium* | *4th Scientific Conference* | *2018 of the Association of Environmental Law Lecturers from African Universities in cooperation with the Climate Policy and Energy Security Programme for Sub- Saharan Africa of the Konrad-Adenauer-Stiftung and UN Environment* (2018) 453.

Journal articles

Humby, T. 'One environmental system: aligning the laws on the environmental management of mining in South Africa' (2015) 33 *Journal of Energy & Natural Resources Law* 110.

Humby, T 'The right to development-in-environment and its ecological and developmental thresholds', (2016) 32 *South African Journal on Human Rights* 219.

Paterson, A. 'Mining in nature reserves – providing partial legal certainty where ambiguity prevailed' (2018) 29 *Stellenbosch Law Review* 199.

Nel, J.L *et al* 'Strategic water source areas for urban water security: Making the connection between protecting ecosystems and benefiting from their services' (2017) 28 *Ecosystem Services* 251-259.

Viljoen, G, Moolman, &. & Oliver, N. 'Critical reflections on existing lawful water uses (ELUs) in South African water law' (2024) 54 *African Journals Online* 319

Theses

Nino Rodda *The Legal protection of Strategic Water Source Areas in South Africa* (unpublished LLM thesis, University of the Witwatersrand, 2021).

Official documentation and reports

Department of Water and Sanitation *National Water Resource Strategy III*

Le Maitre, D.C., Seyler, H., Holland, M., Smith-Adao, L., Nel, J.L., Maherry, A. and Witthüser, K. (2018) Identification, Delineation and Importance of the Strategic Water Source Areas of South Africa, Lesotho and Swaziland for Surface Water and Groundwater. Report No. TT 743/1/18, Water Research Commission, Pretoria

National Water Resource Strategy II of 2013.

Statistics South Africa *Accounts For Strategic Water Source Areas, 1990 to 2020 Discussion Document D0401.3* (March 2023).
Statistics South Africa *Safeguarding Everydrop: Profiling South Africa's Strategic Water Source Areas* (2023

The Constitution

Constitution of the Republic of South Africa, 1996.

Legislation

Mineral and Petroleum Resources Development Act.

National Environmental Management Act 107 of 1998.

National Environmental Management: Protected Areas 57 of 2003.

National Water Act 36 of 1998.

National Water Draft Bill, 2023.

Internet references

https://cer.org.za/wp-content/uploads/2017/11/CER_Water-Source-Book_WEB-Version.pdf,

https://cer.org.za/wp-content/uploads/2019/10/Annexure-L_-Mining-within-Protected-Environments-FINAL-1.pdf>.

https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>.
https://www.csir.co.za/strategic-water-source-areas-combining-surface-and-groundwater-enhance-water-security

https://www.dws.gov.za/Documents/Gazettes/Approved%20National%20Water%20Resource%20Strategy%20Third%20Edition%20(NWRS3)%202023.pdf

https://www.ensafrica.com/news/detail/8446/almost-10-years-since-the-rollout-of-the-one->. https://www.news.uct.ac.za/article/-2019-03-27-protecting-the-heart-of-south-africas-water-supply>.