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The Regulation of Sand Mining in South Africa

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ABSTRACT

Sand, an important input to the construction industry, is extensively mined from the environment leading to depletion of the resource as well as damage to riparian habitat and the alteration of river beds and banks. Sand mining in South Africa is controlled by a complex regulatory system that can be distilled into three main themes: mineral regulation; environmental regulation; and land use planning regulation. In this thesis, it is hypothesised that sand mining is subject to all three regulatory themes equally. In practice, however, the regulatory system is skewed in favour of mineral regulation with the effect that the latter two themes are effectively ignored by sand miners. Intransigence on the part of the Department of Mineral Resources and sand miners to recognise the applicability of land use planning and environmental regulation to the activity of mining has formed the basis of a regulatory conflict that has pitted mineral regulation, on the one hand, against environmental and land use planning regulation, on the other. Recently, two landmark cases were brought in the Western Cape High Court that, to an extent, resolved the conflict. In *Swartland Municipality v Louw NO* the court held that mining is subject to the Land Use Planning Ordinance and that land must be appropriately rezoned to permit mining. A similar finding was made in *City of Cape Town v Maccsand* where the court found that, in addition to complying with the requirements of the Land Use Planning Ordinance, a miner must also comply with the requirements of the National Environmental Management Act in the event that mining triggers a listed activity. The two cases were, subsequently, appealed and the Supreme Court of Appeal affirmed the lower court's ruling that sand mining is subject to land use planning regulation but declined to make a ruling on whether or not sand mining is also subject to environmental regulation because the list of activities identified in terms of section 24D of the National Environmental Management Act, on which the lower court based its decision, had been repealed. The legislative landscape has been fundamentally altered by these judgments. Sand mining is now subject to mineral and land use planning regulation equally. Unfortunately, the conflict between mineral and environmental regulation remains and it is expected that the environmental authorities will pursue the matter in the Constitutional Court in order to clarify the extent to which sand mining is subject to environmental regulation.

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CHAPTER 1

Introduction

A treatise on one of South Africa's most valuable natural resources – sand – cannot begin without mentioning the year 2007. Two significant events that, at first glance appear unconnected, proved apposite in highlighting the value of this resource to our lives. The first event occurred on 19-20 March 2007 when a storm swell struck the KwaZulu-Natal coast causing significant coastal erosion and damage to coastal property.[1] The storm resulted in the loss of an estimated 3.5 million cubic metres of sand from the eThekwini coastline.[2] The second event transpired two months later, on 29 May 2007, when Statistics South Africa released a report showing that South Africa's construction sector expanded by 21.3% in the first quarter of that year – a 17-year record.[3]

The link between these two events becomes apparent when one appreciates that '[s]and is an important input to the construction industry'[4] and that, logically, there would be a correlation between the rate of construction and the rate of extraction of sand from the environment and, as the coastal residents of KwaZulu-Natal soon realised, the

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[1] AM Smith et al 'Combined marine storm and Saros spring high tide erosion events along the KwaZulu-Natal coast in March 2007' (2007) 103 *South African Journal of Science* at 274. See also Greg Arde 'Beaches closed after giant waves' Independent Online (20 March 2007). Available at http://www.iol.co.za/news/south-africa/beaches-closed-after-giant-waves-1.319576 [Accessed 07 November 2010].

[2] Smith et al op cit note 1 at 275.

[3] Statistics South Africa 'Statistical release P0441 Gross Domestic Product First Quarter: 2007' (29 May 2007). Available at http://www.statssa.gov.za/publications/P0441/P04411stQuarter2007.pdf [Accessed 07 November 2010]. See also Business Day 'Construction brightens GDP' (30 May 2007). Available at http://www.businessday.co.za/Articles/Content.aspx?id=31306 [Accessed 07 November 2010].

[4] W De Lange et al 'External costs of sand mining in rivers: Evidence from South Africa' Environmental Resource Economics Conference, Cape Town, South Africa, 21 - 22 May 2009 at 2.

presence or absence of this resource in the environment can have dramatic consequences. The replenishment of beach sand is highly dependent on sediment transport from upstream river catchments and several commentators have raised concerns that the extraction of sediment from rivers and estuaries by sand miners could upset this balance.[5]

In fact the eThekwini Municipality was so concerned about this issue that it saw the need to include a Sand Budget Analysis project in its Integrated Development Plan for 2008/2009[6] and contracted the Council for Scientific and Industrial Research (CSIR) to investigate the impact of dams and sand mining operations on sediment yield[7] and the costs and benefits of sand mining in the eThekwini jurisdiction.[8] The results were disconcerting. Comprehensive catchment sediment yield modelling revealed that current rates of extraction by sand mining exceed natural sediment yield resulting in a net loss of sand from the environment and De Lange et al warns that virtually all of the sand entering the estuaries and beaches of eThekwini from upstream river catchments could eventually be lost as a result of sand mining.[9]

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[5] See, for example, Smith et al (note 1 supra); De Lange et al (note 4 supra); AK Theron et al 'Sand supply from rivers within the Ethekweni jurisdiction, implications for coastal sand budgets and resource economics' (2008) CSIR, Report number: CSIR/NRE/ECO/ER/2008/0096/C, Stellenbosch and A Mather 'Coastal erosion and sea level rise: Are municipalities prepared?' (2007) Paper presented at the 71st IMESA conference, 23-26 October 2007. ICC Durban, South Africa.
[6] eThekwini Municipality 'eThekwini Municipality Integrated Development Plan 2010 and beyond: 2008/2009 review (final)' June 2008 at 26.
[7] See generally Theron et al (note 5 supra).
[8] See generally De Lange et al (note 4 supra).
[9] Ibid at 3.

1.1 Rationale

Continual replenishment of sediment deposits in river beds and estuaries by sediment transport confers a false perception that sand is a renewable resource. However, since it takes many hundred of years for sand to form from the weathering of rock, it is essentially non-renewable and its continued unsustainable extraction from the environment will lead to depletion. Apart from depletion, sand mining can also cause significant damage to the environment, particularly to riparian habitats.[10] Such damage can include soil erosion, destruction of vegetation, altering the flow of a river, destruction of river banks, and destruction of wetlands.[11]

It is evident that sand mining must be strictly controlled if sand is to be conserved and it is within this context that I introduce the focus of this dissertation – the regulation of sand mining in South Africa. In this thesis the regulatory system governing sand mining will be probed and the following key research questions will be posed: what legislation applies to sand mining?; what government departments administer this legislation?; is there a permitting system in place to facilitate sand mining?; how is the regulatory system being applied in practice?; and what are the challenges in applying this regulatory system? The study aims to unpack the regulatory system, identify the relevant roleplayers in the system, and elucidate how the regulatory system functions as an

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[10] See, for example, L Hill and CJ Kleynhans 'Preliminary guidance document for authorisation and licensing of sand mining / gravel extraction, in terms of impacts on instream and riparian habitats' (1999) *Institute for Water Quality Studies*, March 1999.

[11] See, for example, De Lange et al (note 4 supra) and Eleanor Momberg 'Illegal sand-mining crippling the economy' Independent Online (15 April 2007). Available at *http://www.iol.co.za/index.php?set_id=1&click_id=14&art_id=vn20070415085446976C684029&singlepage=1* [Accessed 05 June 2010].

integrated whole. Any conflicts that are exposed will be debated and an opinion advanced on whether or not the regulatory system is functioning effectively and achieving its intended consequence of ensuring sustainable utilisation of this valuable resource.

1.2 Hypothesis

In this thesis I hypothesise that the regulatory system governing sand mining in South Africa may be distilled into three main themes: mineral regulation; environmental regulation; and land use planning regulation. I advance the notion that sand mining is subject to all three themes equally and no one theme takes precedence over another. As I will show later, however, this has not been the case historically with the regulatory system being heavily skewed in favour of mineral regulation. Indeed the rationale for this study was borne out of my observation, over the past decade, of the intense regulatory conflict that has pitted mineral regulation, on the one side, against environmental and land use planning regulation on the other. As a government regulator positioned in the environmental regulatory domain[12] I have witnessed first-hand the negative environmental consequences that have manifested while this conflict has simmered.

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[12] During the past decade I have worked for the following government departments: Department of Agriculture and Environmental Affairs (KwaZulu-Natal); Department of Environmental Affairs and Development Planning (Western Cape); and Department of Environmental Affairs (National). During this time I was exposed to various aspects of sand mining regulation including commenting on sand mining environmental management plans, investigating illegal sand mining activities and observing litigation between sand miners and regulatory authorities.

1.3 Value of the study

This study comes at an opportune time with litigation having been recently concluded in both the High Court and the Supreme Court of Appeal that has, to an extent, resolved the regulatory conflict described above.[13] Moreover, the Department of Environmental Affairs has resolved to revive the 'National Illegal Sand Mining Project' that was first mooted in 2007 and subsequently placed on the backburner.[14] The true value of this study lies in the fact that it is perhaps the first time that the complex regulatory system governing sand mining has been explained in a single academic transcript and will serve as a valuable reference tool for the regulatory authorities who must implement this system. Sand miners themselves as well as environmental Non-Governmental Organisations will also find value in this resource as they attempt to understand the complexities of the system. By highlighting the conflicts and challenges inherent in the system it is hoped that further debate on how the system can be changed and improved will be stoked. Understanding the implications of the outcome of recent litigation will lead, I believe, to better enforcement, a reduction in regulatory conflict and, ultimately, better protection of the environment.

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[13] These cases will be discussed in Chapter 3 of this thesis.

[14] The 'National Illegal Sand Mining Project' was proposed by the Department of Environmental Affairs in 2007 for the purpose of implementing a coordinated enforcement strategy to tackle illegal sand mining in South Africa. It was meant to be a joint project involving various national, provincial and local authorities but never advanced much beyond the circulation of a project document. At a meeting of the Department's Working Group IV on 20 July 2011, it was decided that a joint compliance and enforcement project relating to illegal sand mining should be retained on the Department's work plan for the current financial year and that the 2007 project document should be updated.

1.4 Methodology

The methodology I have employed combines a desktop analysis of the legislation applicable to sand mining with commentary on how the regulatory system is applied in practice drawing on my personal experience of sand mining in my role as a government regulator. I then examine key litigation in the High Court and Supreme Court of Appeal that has brought a degree of clarity to the regulatory system and fundamentally altered the legislative landscape.

1.5 Chapter outline

My discussion begins by, firstly, explaining the nature of the resource and how it is extracted from the environment through the activity of sand mining (Chapter 2). Thereafter, I cover the core of the thesis which is an in-depth analysis of the regulatory regime governing sand mining in South Africa (Chapter 3). I have separated my analysis into two parts. In the former part I explain how the regulatory system is made up of three themes: mineral regulation; environmental regulation and land use planning regulation. Within each theme I discuss the legislative framework and how it applies to the activity of sand mining. In the latter part I highlight and interrogate the regulatory conflict that exists between the mineral regulation of sand mining, on the one hand, and the environmental and land use planning regulation of sand mining, on the other. I then show how key judgments in the Western Cape High Court and the Supreme Court of Appeal have resolved this conflict and fundamentally altered the legislative landscape

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governing sand mining in South Africa. I conclude with a summary of the arguments, opinions and viewpoints advanced in this study and evaluate the implications of the altered legislative landscape on sand mining going forward.

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CHAPTER 2

What is Sand Mining?

Sand mining is the extraction of sand from the environment. Sand mining is also known as 'sand winning' and the term 'winning' is referred to in the official definition of 'mine' contained in the Mineral and Petroleum Resources Development Act[15]:

> "mine", when used as a verb, means any operation or activity for the purposes of winning any mineral on, in or under the earth, water or any residue deposit, whether by underground or open working or otherwise and includes any operation or activity incidental thereto;[16]

Before describing how sand is extracted from the environment it would be useful to, first, give a brief overview of the nature of the resource.

2.1 The nature of the resource

Sand is a naturally-occurring granular material with a particle size between 0.06 to 2 mm in diameter.[17] It is formed over time by the weathering of rock and is comprised mainly of silica.[18] An important characteristic of sand is that it can be transported - by wind and water, for example - and deposited.[19] Natural sand tends to 'accumulate in rivers, on

[15] Act 28 of 2002.
[16] Section 1.
[17] 'sand' The Columbia Encyclopedia Sixth Edition (2008). Available at *http://www.encyclopedia.com/doc/1E1-sand.html* [Accessed 05 November 2011].
[18] Ibid.
[19] See Pettijohn, FJ 'Sand and sandstone' Second Edition Springer-Verlag (1987) Chapter 8 for a detailed discussion on the transportation and deposition of sand.

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beaches, in dunes and in valleys'[20]. Sand can also be artificially manufactured by crushing coarser aggregates such as stone and gravel that have already been mined from a quarry.[21] The focus of this thesis, however, is the mining of natural sand from the environment, particularly sand that is found in rivers (alluvial), in valleys and in dunes.

Sand is not legally defined in the Mineral and Petroleum Resources Development Act but is referred to in the definition of 'mineral':

> "mineral" means any substance, whether in solid, liquid or gaseous form, occurring naturally in or on the earth or in or under water and which was formed by or subjected to a geological process, and includes sand, stone, rock, gravel, clay, soil and any mineral occurring in residue stockpiles or in residue deposits, but excludes-
> (a) water, other than water taken from land or sea for the extraction of any mineral from such water;
> (b) petroleum; or
> (c) peat;[22]

The South African Department of Mineral Resources (previously the Department of Minerals and Energy) classifies sand as a naturally occurring industrial mineral which is a mineral that is mined for the value of its non-metallic properties.[23] In 2007, the Department estimated that there were approximately 641 producers of industrial minerals in South Africa of which about half were in the sand and aggregate sector.[24] In the same year local sales of 'sand and aggregate' comprised 43% of the total local sales of industrial minerals[25] and the sales of fine sand by mass showed an increase from 6 271 kt

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[20] Gauteng Department of Agriculture, Environment and Conservation 'Mining and environmental impact guide' 2008 Chapter 7 at 4.
[21] Ibid.
[22] Section 1.
[23] D Naidoo and M Modiselle 'INDUSTRIAL MINERALS OVERVIEW' in *Department: Minerals and Energy Republic of South Africa, South Africa's Mineral Industry 2007/2008* at 122.
[24] Ibid.
[25] Ibid at 124.

in 1999 to 13 143 in 2007, largely as a result of increased infrastructural activity.[26] These statistics, of course, are derived from the legal sources of sand. There are, no doubt, many illegal sand miners in South Africa that are extracting sand from the environment without the legal authorisation to do so and, thus, the mass of sand sold in South Africa is likely to be much higher than official statistics.

2.2 The activity of sand mining

Sand is extracted from the environment by sand mining and, from my own experience[27], the operation is relatively unsophisticated and rudimentary. A sand miner would require basic equipment: a dozer to clear vegetation and build access roads; an excavator or front-end loader to scoop up sand from the deposit; and trucks to cart the sand away. The barriers to entry are, therefore, low and a sand mining operation can be set up with relatively low cost. In fact, sand mining is ideally suited to small-scale miners and new entrants to the industry. Profits on the sale of sand can be high making this industry quite lucrative.[28]

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A typical sand mining operation would take place on the banks of a river where alluvial sand has been deposited. The miner would, first, build an access road to the

[26] Ibid at 131. A table showing South African sales of sand and aggregate by mass from 1999 to 2007 is divided into 'coarse' and 'fine' categories. The 'fine' category refers to natural sand.
[27] As an employee of the provincial environment departments in both KwaZulu-Natal and Western Cape, I have been intimately exposed to sand mining operations and have witnessed the activity first hand.
[28] The focus of this paper is not on the financial aspects of sand mining, hence, no statistics on the profitability of sand mining are provided. Legal sand miners are expected to adhere to an environmental management plan and provide a financial provision for rehabilitation. This aspect will be discussed later in the paper. Illegal sand miners, on the other hand, spend little on environmental controls and probably do not pay tax or royalties on the sale of sand, hence, the industry is financially attractive to unscrupulous operators.

mining area and then bring plant (dozers, front-end loaders and excavators) onto site. The miner may then establish a temporary camp, usually a gazebo, and install portable toilets to provide shelter and sanitation to staff. There is generally no more than two to three staff on site at any given time. Excavators are used to scoop sand from the deposit and form stockpiles. Front-end loaders are then used to load sand from the stockpiles onto tipper trucks that arrive and depart from the mining area throughout the day. In some cases the sand is processed on site by sieving or washing in order to obtain a uniform particle size. Once an area has been mined out the miner is required to rehabilitate the mined area before moving on to the next mining area which is usually located adjacent to the previous mining area.

A sand mining operation can be viewed as being made up of some, or all, of the following sub-activities:

- clearing of vegetation;
- construction of access road;
- establishment of a temporary site camp;
- establishment of temporary ablutions;
- diverting the flow of a river;
- altering the banks of a river;
- extracting sand from a deposit;
- extracting water from a river;
- building of berms;

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- temporary stockpiling of material;
- storage of diesel and oil;
- maintenance of vehicles and plant; and
- rehabilitation activities such as landscaping and seeding.

Figure 1 shows a graphical representation of a typical sand mining operation on the banks of a river and Figures 2 to 3 show aerial photographs of actual sand mining operations in KwaZulu-Natal. Figures 4 to 6 show various elements of a sand mining operation as seen on site.

It is difficult to determine how many sand mining operations there are in South Africa. The Department of Mineral Resources has a database of legal sand miners but this database is not publicly available and does not include illegal sand mining operations. There is, however, some information available for KwaZulu-Natal. Between September 2006 and July 2007 an aerial survey was undertaken on behalf of the Wildlife and Environment Society of South Africa (WESSA) along the KwaZulu-Natal coast from Thukela estuary in the north to Mtamvuna estuary in the South.[29] The survey found that, of 64 rivers surveyed, 18 were found to have sand mining operations with a minimum total of 60 operations. An aerial survey by Theron et al found 31 active sand mining operations in the eThekwini area alone.

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[29] N Demetriades 'An inventory of sand mining operations in KwaZulu-Natal estuaries: Thukela Mtamvuna' (2007) Marine & Estuarine Research. Investigational report for Coastwatch, WESSA KZN.

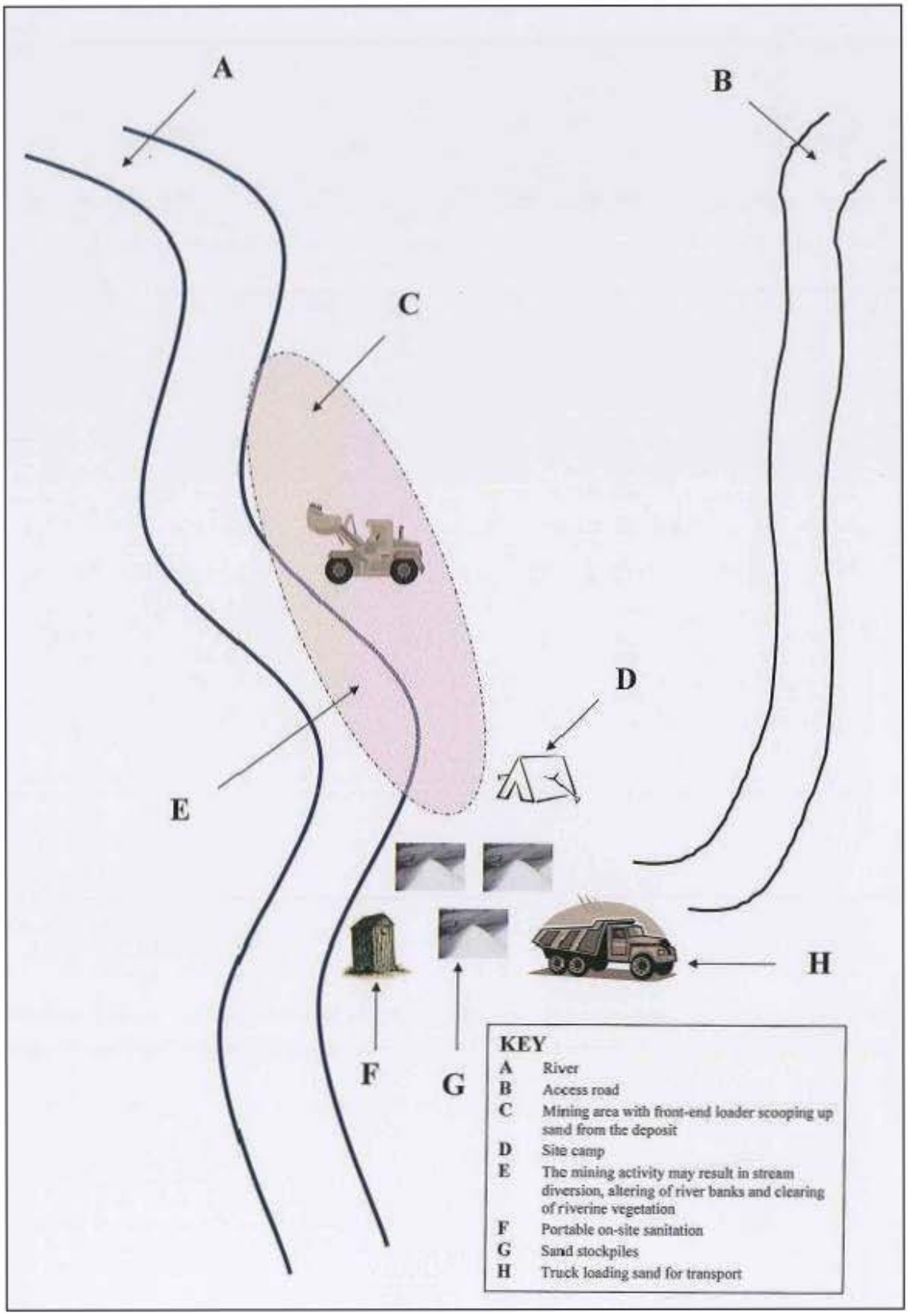

Figure 1. General layout of a typical sand mining operation in a river.

Figure 2. Aerial view of a sand mining operation on the Mvoti River, KwaZulu-Natal, showing: stream diversion (A); access road (B); excavator digging sand from the riverbed (C); front-end loader scooping sand from the deposit (D); sand stockpile (E); and truck leaving the site with a load of sand (F).[30]

Figure 3. Aerial view of a sand mining operation on the Mdloti River, KwaZulu-Natal, showing: access road (A); excavator loading sand into a truck (B); sand stockpile (C); and truck entering the site (D).[31]

[30] Photo extracted from N Demetriades (note 29 supra).
[31] Photo courtesy of Trafford Petterson, eThekwini Municipality.

Figure 4. Access road to a sand mining site on the lower Illovo River, KwaZulu-Natal.[32]

Figure 5. Front-end loader scooping up sand from the deposit at a sand mining site on the lower Illovo River, KwaZulu-Natal.[33]

Figure 6. Sand being loaded onto a truck at a sand mining site on the lower Illovo River, KwaZulu-Natal.[34]

[32] Photo taken by Stewart Green.
[33] Ibid.
[34] Ibid.

Sand mining has a deleterious impact on the environment and a survey of the literature reveals that many countries witness these impacts - from the United States[35], to India[36], Kosovo[37], China[38], Malaysia[39] and South Africa[40], to name a few. Where it takes place instream its primary impact stems from the interruption in sediment transport. By removing sediment from the channel the flow becomes 'sediment-starved' and starts to erode the channel bed and banks.[41] As Kondolf explains, the excavation of pits in the active channel creates a localised nickpoint which then erodes upstream, sometimes for kilometres, in a process called headcutting.[42] The pits also trap sediment resulting in sediment-starved water eroding the channel downstream.[43] Over time, this channel incision can lead to channel instability, channel widening and the undermining of structures such as bridges and pipeline crossings.[44] Apart from instream gravel extraction, sand miners also attack the river banks directly and this results in more immediate alteration of the banks and diversion of stream flow. The insidious nature of sediment starvation is felt no more so than along the coast. Sandy beaches depend on

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[35] MR Meador and AO Layher 'Instream sand and gravel mining: Environmental issues and regulatory process in the United States' (1998) 23 11 *Fisheries* 6.
[36] D Padmalal et al 'Environmental effects of river sand mining: a case from the river catchments of Vembanad Lake, Southwest coast of India' (2008) 54 4 *Environmental Geology* 879. See also S Sreebha and D Padmalal 'Environmental impact assessment of sand mining from the small catchment rivers in the Southwestern coast of India: A case study' (2011) 47 1 *Environmental Management* 130.
[37] BP Popkin 'Mining challenges in Kosovo' (2009) 28 *European Geologist* 23.
[38] J de Leeuw 'Strategic assessment of the magnitude and impacts of sand mining in Poyang Lake, China' (2010) 10 2 *Regional Environmental Change* 95.
[39] MA Ashraf et al 'Sand mining effects, causes and concerns: A case study from Bestari Jaya, Selangor, Peninsular, Malaysia' (2011) 6 6 *Scientific Research and Essays* 1216.
[40] De Lange et al (note 4 supra); Hill and Kleynhans (note 10 supra) and Momberg (note 11 supra).
[41] GM Kondolf 'Hungry Water: Effects of dams and gravel mining on river channels' (1997) 21 4 *Environmental Management* 533.
[42] Ibid at 541.
[43] Ibid. See also GM Kondolf 'Geomorphic and environmental effects of instream gravel mining' (1994) 28 2-3 *Landscape and Urban Planning* 225.
[44] Kondolf op cit note 41 at 542 and 543.

sediment transport from upstream catchments and several authors have cited sand mining as a contributory factor to coastal erosion due to its influence on sand supply.[45]

Biota are also not spared the effects of sand mining. The direct removal of riparian vegetation diminishes habitat and results in a loss in biodiversity. Where vegetation is not removed completely it is often disrupted by the heavy machinery used in sand mining. Furthermore, instream sand mining can result in a 'reduced loading of coarse woody debris in the channel, which is important as cover for fish'.[46] The environmental impacts of sand mining are, moreover, not limited to riverine environments. I have personally seen the geomorphological scars that sand mining has left on non-riparian terrain and, in some cases, I have seen entire hillocks in the process of being mined down to their base.

Given the number of sand mining operations in existence, the fact that sand extraction rates exceed sediment yield and the significant impact that sand mining has on the environment, it is self-evident that sand mining needs to be strictly controlled. The next chapter will present an in-depth analysis of the regulatory system governing sand mining in South Africa.

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[45] See, for example, Smith et al (note 1 supra); DCP Masalu 'Coastal erosion and its social and environmental aspects in Tanzania: A case study in illegal sand mining' (2002) 30 4 *Coastal Management* 347; A Mather (note 5 supra) and O Defeo et al 'Threats to sandy beach ecosystems: A review' (2009) 81 1 *Estuarine, Coastal and Shelf Science* 1.

[46] PA Bisson et al 'Large woody debris in forested streams in the Pacific Northwest: Past present, and future' in EO Salo and T Cundy (eds) *Proceedings of an interdisciplinary symposium on streamside management: Forestry and fishery interactions* (1987) 143 as cited in Kondolf (note 41 supra) at 544.

Chapter 3

The Regulation of Sand Mining in South Africa

The activity of sand mining needs to be regulated effectively to, in my opinion, achieve the following three objectives: conserve the resource; permit an ordered and sustainable exploitation of the resource; and mitigate the environmental impacts associated with sand mining. Effective regulation can only be realised if there exists a well-established and strong regulatory system. The extraction of sand from the environment in the absence of such a regulatory system could easily precipitate that classical dilemma described by Hardin[47] as 'the tragedy of the commons'. In this dilemma a natural resource that is used collectively by a community can be rapidly depleted if individuals within that community act selfishly and use more than their fair share of the resource to the detriment of the community as a whole.

Natural sand is, in my view, a type of natural resource that has benefits for the entire community even though not every member of the community would necessarily use the resource directly. Because sand can be transported and deposited, it is part of a dynamic system. Sand eroded from upper catchments and transported by rivers is deposited along river banks and floodplains where it sustains a riparian habitat and provides fertile ground for agriculture. Sand that is transported into the ocean is eventually deposited along the shore providing the aesthetically pleasing, and not to mention very functional, beaches we have along the KwaZulu-Natal coast. The mere

[47] Garrett Hardin 'The tragedy of the commons' (1968) 162 3859 *Science* 1243.

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presence of sand in the environment imparts a benefit on the entire community. The absence of sand, on the other hand, can have a devastating effect on the community as we bore witness with the coastal erosion event that occurred in March 2007. Individuals in the community who extract more sand than can be replenished in this dynamic system essentially erode the benefits that sand imparts on the community as a whole, thus actualising Hardin's tragedy.

Van Vught[48] used Hardin's theory to present natural resource management as a 'social dilemma' created by a 'conflict between the short-term self-interest of users and the long-term collective interest of the user community'.[49] In his view, in order to ensure sustainable utilisation of a resource, it is necessary to restrict access to it and this could be done in two ways: 'via a central authority (centralization) or by creating a system of individual access (individualization)'.[50] He also proposed a third strategy – a collectivistic approach – whereby '[u]sers may show restraint if their community is important to their psychological well-being, which is evidenced by a strong sense of community identification'.[51]

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In South Africa, access to and extraction of natural sand is restricted by a regulatory system which, in theory, should avert Hardin's tragedy. Although complex, the regulatory system governing sand mining in South Africa can be conveniently distilled into three themes: **mineral regulation**, **environmental regulation** and **land use**

[48] Mark Van Vught 'Central, individual, or collective control? Social dilemma strategies for natural resource management' (2002) 45 *American Behavioral Scientist* 783.
[49] Ibid at 3.
[50] Ibid at 4.
[51] Ibid at 21.

planning regulation. The basis for this separation lies in the fact that sand is, firstly, a mineral resource and the extraction thereof is subject to the regulatory regime governing the exploitation of mineral resources in the country (mineral regulation). Secondly, sand mining is an activity that has the potential to cause an impact on the environment and, therefore, is subject to environmental law (environmental regulation). Thirdly, sand mining involves the use of land and is, therefore, subject to land use planning regimes (land use planning regulation). Each theme comprises of a legislative framework made up of key statutes that regulate different aspects of sand mining.

My aim, in this Chapter, is to unpack these three themes and I do this by, firstly, explaining how the Constitution of South Africa[52] determines which sphere of government and which regulatory authorities are vested with the mandate to administer each theme and, secondly, by analysing in greater detail the legislative framework that exists in each theme (Part One). In my analysis I cover the different authorisations (ie permits or licenses) that a sand miner would have to acquire in order to conduct a sand mining operation. My point of departure in this enquiry is that sand mining is subject to all three themes equally. In other words a sand miner must comply with the legislative framework in all three themes. Later, however, I will discuss a regulatory conflict that has pitted mineral regulation on the one hand, against environmental and land use planning regulation, on the other, and that has resulted in the regulatory system being skewed in favour of mineral regulation (Part Two). I will then show how key judgments in the High Court and the Supreme Court of Appeal have, to an extent, resolved this conflict and brought greater clarity to the regulatory landscape.

[52] Act 108 of 1996.

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PART ONE THE REGULATORY REGIME GOVERNING SAND MINING

3.1 Mineral regulation

3.1.1 Constitutional and regulatory mandate

In South Africa's quasi-federal system of government,[53] the Constitution recognises three distinctive, interdependent and interrelated spheres of government: national, provincial and local[54] and sets out the functional areas of competence of these three spheres of government. The functional areas of concurrent national and provincial legislative competence are set out in schedule 4 and the functional areas of exclusive provincial legislative competence are set out in schedule 5. Municipalities have executive authority over the local government matters listed in part B of schedule 4 and part B of schedule 5. What is interesting to note is that 'mineral regulation', as a functional area of legislative competence, is not listed in either schedule 4 or schedule 5. In other words, the Constitution does not explicitly assign to any sphere of government the mandate to control the exploitation of mineral resources. What sphere of government, then, has legislative authority over mining? A similar question can be asked of other competences that are not expressly assigned in the Constitution such as Home Affairs, Foreign Affairs, Labour, Correctional Services and Defence.

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[53] The extent to which South Africa conforms to a federal doctrine (in all its various guises) has been widely debated by scholars. See, for example, Richard Simeon and Christina Murray 'Multi-sphere governance in South Africa: an interim assessment' (2001) 31.4 *Publius* 65 and GE Devenish 'Federalsim revisted: the South African paradigm' (2006) 1 *Stellenbosch Law Review* 129.
[54] Section 40.

To answer the above question one is required to make an inference that those competences that are not explicitly assigned to either the provincial or local sphere of government naturally vest in the national sphere. As Thabo Rapoo explains, 'any function not expressly allocated to any sphere of government by the Constitution becomes a central government responsibility by default'.[55] This rationale was further set out in *Ex Parte President of the Republic of South Africa: In Re Constitutionality of the Liquor Bill*[56] by Cameron AJ who stated:

> 'By contrast with Schedule 5, the Constitution contains no express itemisation of the exclusive competences of the national Legislature. These may be gleaned from individual provisions requiring or authorising "national legislation" regarding specific matters. They may also be derived by converse inference from the fact that specific concurrent and exclusive legislative competences are conferred upon the provinces, read together with the residual power of the national Parliament, in terms of s 44(1)(a)(ii), to pass legislation with regard to "any matter". This is subject only to the exclusive competences of Schedule 5 which are in turn subordinated to the "override" provision in s 44(2). An obvious instance of exclusive national legislative competence to which the Constitution makes no express allusion is foreign affairs.'

As Geoff Budlender SC succinctly explained during oral argument in *City of Cape Town v Maccsand*,[57] it would be useful to imagine a metaphorical pie comprised of the pool of available functional areas that need to be assigned to the three spheres of government. In the first instance, the functional areas that are meant to be dealt with exclusively by local government are carved from the pie and given to local government.

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[55] Thabo Rapoo 'Reflections on provincial government in South Africa since 1994' in Yvonne G. Muthien, Meshack M. Khosa and Bernard M. Magubane (eds) *Democracy and governance review: Mandela's legacy 1994 – 1999* (2000) 89 at 91. Several commentators see the Constitution as implying the principle of 'institutional subsidiarity' in which national government has a subsidiary function to devolved government. This principle maintains that national government should only retain those powers that cannot be more effectively carried out at provincial or local level. See, for example, Jaap De Visser 'Institutional subsidiarity in the South African Constitution' (2010) 1 *Stellenbosch Law Review* 90.

[56] *Ex Parte President of the Republic of South Africa: In Re Constitutionality of the Liquor Bill* 2000 (1) SA 732 (CC) at paragraph 46.

[57] Note 256 infra. Mr. Budlender appeared for the City of Cape Town (applicant) in the Western Cape High Court (12-15 April 2010).

These areas are listed in part B of schedule 4 and 5. In the second instance, the functional areas that are meant to be dealt with exclusively by provincial government are carved from the pie and given to provincial government. These areas are listed in schedule 5. In the third instance, the functional areas that are required to be managed concurrently by both national and provincial government are carved from the pie and are given jointly to national and provincial government. These areas are listed in schedule 4. Any functional area remaining in the pie after the areas listed in schedule 4 and 5 are excised is regarded as a residual competence and these residual competences automatically vest in the national sphere. Indeed many of the functional areas of national government, such as Home Affairs, Foreign Affairs, Labour, Correctional Services and Defence, are residual competences that are not explicitly assigned to national government by the Constitution but vest in the national sphere by virtue of not being specifically assigned to the provincial and local sphere, even on a concurrent basis.

Applying the same approach to the question of which sphere of government retains the competence to regulate mining it becomes clear that, because mining has not already been assigned to either the provincial or local sphere, and does not appear on the list of competencies in schedule 4 and 5, it is a residual competence that then vests in national government. In constitutional terms, therefore, mining is an exclusive national competence. This is further evidenced by the fact that there is only one mining regulator that sits in the national sphere i.e. the Department of Mineral Resources. There are no

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provincial or local mining regulators. Using Cameron AJ's approach, Plasket AJA comes to the same conclusion in *Maccsand v City of Cape Town*[58]:

> 'Applying this approach, it is clear that the regulation of mining is an exclusive national legislative competence and that the administration of the MPRDA is vested in the national executive. Mining is not mentioned in either Schedule 4 or 5 and so, by "converse inference" it is a legislative competence that falls within the scope of the term "any matter" as contemplated by s 44(1)(a)(ii) of the Constitution; and the MPRDA itself vests its administration in the Minister of Mineral Resources and her officials within the national executive sphere of government.'

3.1.2 Legislative framework

As mentioned, mineral regulation falls exclusively under national government and there is essentially one authority in this theme that claims jurisdiction over the regulation of sand mining: the Department of Mineral Resources. The Department exercises its authority using a key national statute, the Mineral and Petroleum Resources Development Act.[59]

3.1.2.1 The Mineral and Petroleum Resources Development Act

The Mineral and Petroleum Resources Development Act is the primary statute that governs mineral resources in South Africa and regulates the process of exploiting these resources. For any person planning a sand mining operation, this Act is the logical starting point. The Act places all mineral resources in South Africa, including natural

[58] *Maccsand v City of Cape Town and others* 2011 (6) SA 633 (SCA) at paragraph 14.
[59] The Mineral and Petroleum Resources Development Act should be read in conjunction with the Mineral and Petroleum Resources Development Regulations as published in *GNR* 527, 23 April 2004.

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sand, under the custodianship of the State.[60] Any person wishing to extract natural sand from the environment must apply to the State for the right to do so and the Act sets out a comprehensive regulatory regime governing the exploitation of a mineral resource which is applied through the administration of various rights, permissions and permits.[61] In the case of natural sand, a sand miner would not ordinarily seek any prospecting or reconnaissance permissions or rights because deposits of natural sand are easily identifiable and no prospecting is required to find them. If a sand miner can optimally mine the deposit within a period of two years and can restrict the mining area to an extent of 1.5 hectares or less then the miner need only apply for a 'mining permit' to commence mining.[62]

If a sand miner wishes to extend the mining area beyond 1.5 hectares and mine for a period of more than two years then the miner should apply for a 'mining' right' under section 22 which would grant the miner the right to mine the deposit for a period of up to 30 years. What I have discovered through my exposure to sand mining, though, is that sand miners tend to restrict their mining area to the 1.5 hectare limit and, after two years, move to an adjacent area and apply for a mining permit for a subsequent 1.5 hectares. In this way a sand miner can mine a large deposit over a number of years without applying for a mining right. This benefits the sand miner because applying for a mining right is a rather onerous process that involves, inter alia, the conducting of an environmental

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[60] Section 3(1).
[61] The Mineral and Petroleum Resources Development Act empowers the State to grant, issue, refuse, control, administer, and manage the following: reconnaissance permission, prospecting right, permission to remove, mining right, mining permit, retention permit, technical co-operation permit, reconnaissance permit, exploration right and production right (section 3(2)(a)).
[62] Section 27(1)(a) and (b). The legal process of applying for a mining permit is spelt out in greater detail in Chapter 2 of *GNR* 527, 23 April 2004.

impact assessment[63] and submission of a prescribed social and labour plan[64]. Furthermore, a mining permit may be renewed for 'three periods each of which may not exceed one year'.[65] A sand miner could, therefore, potentially mine a site for five years on one mining permit. The strategy is risky, however, because competing sand miners could secure mining permits over other areas of the deposit whereas a mining right over the entire deposit would secure the whole deposit for a single miner.

While seeking a mining right may be an onerous process applying for a mining permit is, in contrast, rather straightforward. An applicant need only comply with two requirements which are: 'to submit an environmental management plan'; and 'to notify in writing and consult with the land owner and lawful occupier and any other affected parties'.[66] It is important to note that an applicant need not own the land on which the sand is to be extracted. The applicant need only notify and consult the land owner during the application process. If these requirements are met then the Regional Manager must issue a mining permit[67], but not before calling upon interested and affected parties to submit their comments regarding the application and this includes other government departments.[68] As an erstwhile employee of the KwaZulu-Natal provincial environmental department, I was intimately involved in commenting on applications for sand mining permits and it would be useful at this point to provide some insight into the sand mining permit application process.

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[63] Section 22(4)(a).
[64] Section 23(1)(e).
[65] Section 27(8)(a).
[66] Section 27(5)(a) and (b).
[67] Section 27(6).
[68] Section 10(b).

The Department of Mineral Resources had consolidated the permit application process into a standardised 'application pack' consisting of ten sections (Sections A to J). A scanned copy of the contents page of a typical sand mining application pack is given in Appendix I. The application pack includes a pro forma Environmental Management Plan that cannot be altered. The Environmental Impact Assessment consists of a six page questionnaire with basic questions that the applicant can fill out him or herself. A typical questionnaire is given in Appendix II. There is no requirement to appoint an Environmental Assessment Practitioner to complete this assessment. In some cases a geothechnical assessment is required. Once all the information has been submitted to the Regional Director the pack is then circulated to other regulatory authorities for comment, in particular to the Department of Water Affairs, the provincial environment department and the municipality. If comments are received from these authorities the Regional Director will forward the comments to the applicant and give him or her an opportunity to respond. The applicant must also lodge a financial provision for the purposes of rehabilitation of the site once mining is completed. Once the Regional Director has assessed all the information a decision to grant or refuse the mining permit is made. If a decision to grant a permit is made, the permit is valid for two years and the permit-holder is permitted to mine sand within the area bound by the coordinates specified in the permit which may not exceed 1.5 hectares in extent. A copy of a typical sand mining permit is given in Appendix III. After two years the permit-holder may apply for a renewal of the permit or may submit a new application for an area adjacent to the current permitted area.

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After assessing several of these sand mining application packs we[69] identified a number of inadequacies in these applications. For instance, we found that:

- The Environmental Impact Assessment pro-forma found in Section C of the application was very basic. The applicant was not required to appoint an Environmental Assessment Practitioner to conduct the environmental assessment and the applicant could fill out the pro-forma him- or herself. Invariably, inadequate and insufficient information on the state of the environment and the potential impacts on the environment were furnished such that any meaningful comment on the application could not be provided.
- Apart from a geotechnical consultant, the applicant was not required to appoint any other specialist to assist with the application.
- An evaluation of the cumulative impact of the sand mining on the receiving environment was never done. In other words, no information was provided on how many other sand mining operations were taking place in the catchment and what the cumulative impact would be.
- No information was provided on the expected volume of sand that would be extracted from the environment over a two-year period.
- The Environmental Management Plan found in Section F was standard and could not be changed or adapted to suit individual applications. It also did not contain a clearly defined monitoring and auditing programme.

[69] I use the collective term 'we' because the findings and analysis presented in this section stems largely from joint discussion amongst me and my staff in the Department of Agriculture and Environmental Affairs and discourse with other environmental regulatory authorities at the time.

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- The financial provision, which was usually in the region of R10 000, was woefully inadequate to cover the expected costs of rehabilitation of a 1.5 ha site.

These inadequacies were, in our view, so pronounced that a reasonable decision-maker would not have been capable of making an informed decision. The information provided was simply insufficient. As the relevant official tasked with commenting on these applications I took full advantage of the opportunity provided to me and relayed our concerns to the Department of Mineral Resources for each application that I and my staff reviewed. Sometimes I received a reply back from the applicant addressing our concerns but this was seldom the case. Moreover, the Department of Mineral Resources itself did not attempt to address our concerns. Indeed the Department of Mineral Resources proceeded to issue sand mining permits despite our comments and despite the quality of information put forward by the applicants. During my time in Durban I was unaware of any case where the Department of Mineral Resources refused a sand mining permit.

For a sand miner a mining permit is a very valuable document and grants the holder a number of rights and obligations as set out in section 27(7) of the Act:

> (7) The holder of a mining permit—
> (a) may enter the land to which such permit relates together with his or her employees, and may bring onto that land any plant, machinery or equipment and build, construct or lay down any surface or underground infrastructure which may be required for purposes of mining;
> (b) subject to the National Water Act, 1998 (Act No. 36 of 1998), may use water from any natural spring, lake, river or stream situated on, or flowing through, such land or from any excavation previously made and used for prospecting or mining purposes, as the case may be, or sink a well or borehole required for use relating to prospecting or mining, as the case may be, on such land; and

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(c) must pay the State royalties;
(d) may mine, for his or her own account on or under that mining area for the mineral for which such permit relates.

The right afforded a permit-holder to enter land and commence mining has caused conflict with landowners who have objected to mining taking place on their land. A classic case involved the Maranda Mining Company who was granted a mining permit to mine gold on portion 7 of the farm Leydsdorp.[70] The landowner and occupier on several occasions denied the company access to the site and the company subsequently succeeded in obtaining an interdict restraining the landowner from refusing access.[71] The landowner took the matter on appeal but failed. The Court held that Maranda had complied with all the requirements under section 27 of the Mineral and Petroleum Resources Development Act and, pursuant to being granted a mining permit from the Department of Mineral Resources, had a clear right to gain access to the land and commence their mining activity. It would seem, thus, that a mining permit is indeed an extremely valuable instrument and affords the holder an almost iron-clad guarantee.

While an affected landowner may be compensated under section 54 of the Act for any loss or damage suffered, P J Badenhorst, in his analysis of *Joubert v Maranda Mining Company*, laments the fact that '[t]he MPRDA lacks an independent statutory claim for compensation for damage or loss suffered by the owner of land against mining companies.'[72] He advocates that '[r]ecognition of an independent statutory claim for compensation by owners of land for loss or damage caused by mining operations by

[70] *Joubert v Maranda Mining Company* 2010 (1) SA 198 (SCA).
[71] Ibid at paragraph 1.
[72] PJ Badenhorst 'Right of access to land for mining purposes : on terra firma at last? – Joubert v Maranda Mining Company (Pty) Ltd' (2010) 73 *Tydskrif vir hedendaagse Romeins-Holandse Reg : Journal of Contemporary Roman-Dutch law* 318 at 325.

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amendment of the MPRDA could go a long way to achieving a fairer and more balanced outcome in resolving the age-old conflict between mining by miners and the use of land by its owners.'[73] He also advises affected landowners to fully participate in the legal processes provided for in the Act and to lodge their opposition to the proposed mining before it starts.[74]

An applicant for a mining permit must make a financial provision to cover the costs of rehabilitating the affected mining area once mining is completed.[75] In the case of sand mining, the financial provision is usually in the region of R10 000 to R15 000 – hardly enough to rehabilitate a 1.5 hectare site. Once sand mining has come to an end, the miner must apply to the Regional Manager for a 'closure certificate'[76] which may not be issued 'unless the Chief Inspector and the Department of Water Affairs and Forestry have confirmed in writing that the provisions pertaining to health and safety and management of potential pollution to water resources have been addressed.'[77]

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3.1.2.2 Amendments to the Mineral and Petroleum Resources Development Act as contemplated by the Mineral and Petroleum Resources Development Amendment Act 49 of 2008

Substantial amendments to the Mineral and Petroleum Resources Development Act were published in Government Gazette No. 32151 of 21 April 2009. The main purpose of

[73] Ibid at 328.
[74] Ibid at 327.
[75] Section 41.
[76] Section 43(4).
[77] Section 43(5).

these amendments is to align the environmental requirements of the Mineral and Petroleum Resources Development Act with the environmental requirements of the National Environmental Management Act[78] in order to create one environmental management system for mining. This alignment is discussed further in section 3.2.3. The amendment Act, which is not in force yet, also proposes to increase the mining area for which a mining permit may be granted from 1.5 ha to 5 ha.[79]

3.2 Environmental regulation

3.2.1 Constitutional and regulatory mandate

Environment, as a functional area, is listed in part A of schedule 4 of the Constitution and is an area of concurrent national and provincial legislative competence. In other words, both national and provincial government may regulate the environmental aspects of sand mining. In the national sphere the main regulators are the Department of Environmental Affairs and the Department of Water Affairs while each province has a provincial environmental department responsible for environmental matters. Many local authorities also have environmental administrative units and they derive their mandates from certain national statutes that afford powers to local authorities as well as from certain functional areas listed in part B of schedules 4 and 5 that are regarded as 'environmental' such as 'air pollution', 'water and sanitation services', 'cleansing', 'control of public nuisances' and 'municipal parks and recreation'.

[78] Act 107 of 1998.
[79] Section 23(a).

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3.2.2 Legislative framework

The environmental regulation of mining in general and sand mining, in particular, is a rather complex affair and has been the source of conflict between various regulatory authorities, as will be discussed later in this chapter. There are three authorities in the national sphere that claim to regulate sand mining from an environmental perspective: the Department of Mineral Resources, the Department of Environmental Affairs and the Department of Water Affairs.[80] These authorities use the Mineral and Petroleum Resources Development Act, the National Environmental Management Act and the National Water Act[81], respectively, to regulate sand mining. There is also a fourth authority, sitting in the provincial sphere of government, and that is the provincial department responsible for environmental affairs in each province, of which there are nine. These provincial authorities also use the National Environmental Management Act to regulate certain environmental aspects related to sand mining.

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3.2.2.1 The Mineral and Petroleum Resources Development Act

Although not an environmental statute, the Mineral and Petroleum Resources Development Act substantially covers the environmental aspects of mining. It does so in two ways. First, it incorporates various environmental principles and makes mineral

[80] The Department of Environmental Affairs and Department of Water Affairs fall under the same ministry (Water and Environmental Affairs) but are generally regarded as two separate departments.
[81] Act 36 of 1998.

regulation subject to these principles. Second, it provides practical tools to ensure that the environment is protected during mining activities.

3.2.2.1.1 Environmental principles incorporated into the Mineral and Petroleum Resources Development Act

The first mention of environmental principles in the Act is the preamble which affirms 'the State's obligation to protect the environment for the benefit of present and future generations, to ensure ecologically sustainable development of mineral and petroleum resources and to promote economic and social development'. The Act then sets out its objects one of which is to 'give effect to section 24 of the Constitution by ensuring that the nation's mineral and petroleum resources are developed in an orderly and ecologically sustainable manner while promoting justifiable social and economic development'.[82] The Act then requires the Minister to 'ensure the sustainable development of South Africa's mineral and petroleum resources within a framework of national environmental policy, norms and standards while promoting economic and social development'.[83] It is also important to note that chapter 4 of the Act, which deals with applications for mineral rights and permits, is not just titled 'Mineral Regulation' but is titled 'Mineral and Environmental Regulation' thus underscoring the fact that environmental aspects are part and parcel of mineral regulation. A number of environmental principles are also expressly set out in sections 37 and 38 of the Act which reads as follows:

[82] Section 2(h).
[83] Section 3(3).

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37. Environmental management principles.

(1) The principles set out in section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998)-

(a) apply to all prospecting and mining operations, as the case may be, and any matter relating to such operation; and

(b) serve as guidelines for the interpretation, administration and implementation of the environmental requirements of this Act.

(2) Any prospecting or mining operation must be conducted in accordance with generally accepted principles of sustainable development by integrating social, economic and environmental factors into the planning and implementation of prospecting and mining projects in order to ensure that exploitation of mineral resources serves present and future generations.

38. Integrated environmental management and responsibility to remedy.

(1) The holder of a reconnaissance permission, prospecting right, mining right, mining permit or retention permit-

(a) must at all times give effect to the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998);

(b) must consider, investigate, assess and communicate the impact of his or her prospecting or mining on the environment as contemplated in section 24 (7) of the National Environmental Management Act, 1998 (Act No. 107 of 1998);

(c) must manage all environmental impacts-

(i) in accordance with his or her environmental management plan or approved environmental management programme, where appropriate; and

(ii) as an integral part of the reconnaissance, prospecting or mining operation, unless the Minister directs otherwise;

(d) must as far as it is reasonably practicable, rehabilitate the environment affected by the prospecting or mining operations to its natural or predetermined state or to a land use which conforms to the generally accepted principle of sustainable development; and

(e) is responsible for any environmental damage, pollution or ecological degradation as a result of his or her reconnaissance prospecting or mining operations and which may occur inside and outside the boundaries of the area to which such right, permit or permission relates.

(2) Notwithstanding the Companies Act, 1973 (Act No. 61 of 1973), or the Close Corporations Act, 1984 (Act No. 69 of 1984), the directors of a company or members of a close corporation are jointly and severally liable for any unacceptable negative impact on the environment, including damage, degradation or pollution advertently or inadvertently caused by the company or close corporation which they represent or represented.

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The incorporation of these environmental principles into the Act serves to strengthen the link between mineral regulation and environmental regulation. It makes it clear that mineral exploitation cannot take place in the absence of environmental responsibilities. Thus, miners are obliged to manage all environmental impacts during mining and are responsible for rehabilitating the mined area after the cessation of mining. It also leads, of course, to a degree of overlap with the mandate of the environmental regulatory authorities leading to a conflict over who, ultimately, is responsible for regulating the environmental aspects of mining. It, nevertheless, ensures that the principle of sustainable development is woven into the fabric of the mineral regulatory regime.

3.2.2.1.2 Practical tools in the Mineral and Petroleum Resources Development Act that serve to protect the environment

The Mineral and Petroleum Resources Development Act contains several tools that are designed to ensure that the environment is protected during mining and each tool is discussed briefly below.

3.2.2.1.2.1 Use of water

The first tool relates to the use of water during mining. The Act makes the use of water from any natural spring, lake, river or stream for the purposes of prospecting, mining,

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exploration or production subject to the National Water Act.[84] This ensures that water is used according to the environmental principles contained in the National Water Act. It also means that if water cannot be used in accordance with the National Water Act then mining cannot take place. It introduces a veto into the regulatory system which will automatically stop an existing mining activity or prohibit a proposed mining activity if it can be shown that water use will not be in accordance with the National Water Act.

3.2.2.1.2.2 Restriction of mining on certain land

The second tool relates to provisions in the Act that prohibit or restrict mining on certain land. In the first instance, section 48 of the Act sets out the types of land where prospecting and mining may be prohibited or restricted and reference is made to section 20 of the National Parks Act[85] which prohibits prospecting and mining in a national park.[86] In the second instance, section 49 of the Mineral and Petroleum Resources Development Act gives the Minister of Mineral Resources the power to prohibit or restrict prospecting or mining on land identified by the Minister and the Minister could conceivably use this provision to identify any environmentally-sensitive land on which mining may not take place. The Minister recently exercised her power in this regard

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[84] Section 5(3)(d).
[85] Act 57 of 1976.
[86] The National Parks Act has, with the exception of section 2(1) and schedule 1, been repealed by section 90 of the National Environmental Management: Protected Areas Act (Act No. 57 of 2003) but the Mineral and Petroleum Resources Development Act has not been concurrently amended to taken into account this legislative change. Nevertheless, section 48 of the National Environmental Management: Protected Areas Act is currently in force and this prohibits or restricts prospecting and mining activities in certain protected areas.

when she signalled her intent to restrict mining on various farms in the vicinity of the Chrissiesmeer Biodiversity Site in Mpumalanga.[87]

3.2.2.1.2.3 Requirement to have an approved environmental management programme or environmental management plan

The third tool is the requirement for a person to have an approved environmental management programme or environmental management plan before such person may 'prospect for or remove, mine, conduct technical co-operation operations, reconnaissance operations, explore for and produce any mineral or petroleum or commence with any work incidental thereto on any area'.[88] The purpose of an environmental management plan is to manage and rehabilitate the environmental impact resulting from prospecting, reconnaissance, exploration or mining operations.[89] The obligation to submit an environmental management programme or environmental management plan and the requirements for the person preparing such a programme or plan are set out in detail in section 39 of the Act. A person who has applied for a 'mining right' must conduct an environmental impact assessment and submit an environmental management programme and a person who applies for a 'reconnaissance permission', 'prospecting right' or 'mining permit' must submit an environmental management plan.[90]

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[87] *GN* 169, 4 March 2011.
[88] Section 5(4)(a).
[89] See the definition of 'environmental management plan' in section 1.
[90] Section 39(1) and (2).

An applicant who prepares an environmental management programme or environmental management plan must do the following:

> (a) establish baseline information concerning the affected environment to determine protection, remedial measures and environmental management objectives;
> (b) investigate, assess and evaluate the impact of his or her proposed prospecting or mining operations on-
> (i) the environment,
> (ii) the socio-economic conditions of any person who might be directly affected by the prospecting or mining operation; and
> (iii) any national estate referred to in section 3 (2) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999), with the exception of the national estate contemplated in section 3 (2) (i) (vi) and (vii) of that Act;
> (c) develop an environmental awareness plan describing the manner in which the applicant intends to inform his or her employees of any environmental risks which may result from their work and the manner in which the risks must be dealt with in order to avoid pollution or the degradation of the environment; and
> (d) describe the manner in which he or she intends to-
> (i) modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation;
> (ii) contain or remedy the cause of pollution or degradation and migration of pollutants; and
> (iii) comply with any prescribed waste standard or management standards or practices.[91]

One can see from the above that an environmental management programme or environmental management plan covers the environmental aspects of a mining activity quite comprehensively. Preparing an environmental management programme or environmental management plan, though, is one thing – getting the same approved by the Minister is quite another and the Act provides further obligations on an applicant before such programme or plan can be approved and the Act does fetter the Minister's power to approve such a programme or plan.

[91] Section 39(3).

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The additional obligations on an applicant with respect to getting an environmental management programme or environmental management plan approved are: the applicant must make the prescribed financial provision for the rehabilitation or management of negative environmental aspects[92]; and the applicant must have the capacity, or have provided for the capacity, to rehabilitate and manage negative impacts on the environment[93].

Insofar as the Minister's power to approve an environmental management programme or environmental management plan is concerned, the Act is clear that the Minister must approve the programme or plan provided the requirements set out in section 39(4)(a) of the Act are met. In other words the Minister has no discretion to refuse an environmental management programme or plan that meets all the requirements. The Minister's power is, however, fettered by section 39(4)(b)(i) and (ii) of the Act which states that the Minister may not approve an environmental management programme or plan unless he or she has considered 'any recommendation by the Regional Mining Development and Environmental Committee' and 'the comments of any State department charged with the administration of any law which relates to matters affecting the environment'. The Minister has further powers to call for additional information and adjust the programme or plan in such way as the Minister may require[94] and to approve an amended programme or plan after he or she has approved the initial plan[95].

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[92] Section 39(4)(a)(ii) read with section 41(1).
[93] Section 39(4)(a)(iii).
[94] Section 39(5).
[95] Section 39(6)(a).

3.2.2.1.2.4 Financial provision for the rehabilitation or management of negative environmental impacts

The fourth tool has already been touched on and that is the requirement, in terms of section 41 of the Act, for an applicant for a prospecting right, mining right or mining permit to make a prescribed financial provision for the rehabilitation or management of negative environmental impacts. The financial provision must be made before the Minister can approve the applicant's environmental management programme or environmental management plan. In the event that the miner fails to rehabilitate or manage any negative impact on the environment the Minister may then use the financial provision to rehabilitate or manage the negative environmental impact in question.

3.2.2.1.2.5 Consultation with interested and affected parties

The fifth tool relates to consultation with interested and affected parties and other State departments. Section 10 of the Act requires the Regional Manager to call upon interested and affected persons to submit their comments on applications received by the Regional Manager. If there are any objections then the Regional Manager must refer the objection to the Regional Mining Development and Environmental Committee (REMDEC) to consider the objections and advise the Minister thereon. This provides a golden opportunity for persons to raise an objection on environmental grounds. Section 40 of the Act requires the Minister to consult with any State department which administers any law relating to matters affecting the environment when considering an environmental

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management programme or environmental management plan. This provides an opportunity for departments such as the Department of Environmental Affairs, the Department of Water Affairs, provincial environmental departments as well as local authorities to comment on these plans and influence the decision of the Minister.

3.2.2.1.2.6 Mine closure

The sixth tool is used at mine closure. Section 43 of the Act states that a miner remains responsible for any environmental liability, pollution or ecological degradation until the Minister has issued a closure certificate. The Minister can, therefore, refrain from issuing a closure certificate until all environmental liabilities are dealt with. This section goes on further to say that no closure certificate may be issued unless the Department of Water Affairs has confirmed in writing that provisions pertaining to the management of potential pollution to water resources have been addressed. Furthermore, the Minister may retain a portion of the financial provision for any latent or residual environmental impact which may become known in the future.

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3.2.2.1.2.7 Minister's power to remedy environmental damage

The seventh tool relates to the Minister's powers to take certain action when pollution or ecological degradation has occurred. In such a scenario the Minister may direct the miner to 'investigate evaluate, assess and report on the impact of any pollution or

ecological degradation'[96], 'take such measures as may be specified in such directive'[97], and 'complete such measures before a date specified in the directive'[98]. If the miner fails to comply with the directive then the Minister may 'take such measures as may be necessary to protect the health and well-being of any affected person or to remedy ecological degradation and to stop pollution of the environment'[99] and may recover any expenses incurred from the miner[100]. Where a miner cannot be traced or has been liquidated the Minister can use section 46 of the Act to instruct the Regional Manager to take the necessary measures to prevent further pollution or degradation and make the area safe. Funds for this purpose can be taken from the financial provision and, if necessary, the money may be appropriated by Parliament for this purpose.

3.2.2.1.2.8 Minister's power to suspend or cancel rights, permits or permissions

The final tool provided in the Mineral and Petroleum Resources Development Act to protect the environment is the Minister's power, in terms of section 47, to suspend or cancel any reconnaissance permission, prospecting right, mining right, mining permit or retention permit if the holder thereof contravenes the approved environmental programme. This would effectively stop any further mining and the tools relating to remediation and rehabilitation will then be invoked.

[96] Section 45(1)(a).
[97] Subsection (b).
[98] Subsection (c).
[99] Subsection (2)(a).
[100] Subsection (2)(e).

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3.2.2.2 The National Environmental Management Act

The National Environmental Management Act is South Africa's primary statute governing environmental management. Although the Mineral and Petroleum Resources Development Act regulates the environmental aspects of sand mining quite comprehensively, as discussed in the previous section, sand mining is also subject to the National Environmental Management Act because of its potential to cause a significant environmental impact. There are essentially three ways in which sand mining may be regulated by the National Environmental Management Act: through the environmental principles set out in section 2 of the Act; through section 24 of the Act and the associated Environmental Impact Assessment regulations; and through the Duty of Care provisions in section 28 of the Act.

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3.2.2.2.1 Environmental principles in the National Environmental Management Act applicable to sand mining

Sand mining essentially involves the extraction of a non-renewable natural resource from the environment and is also associated with disturbances to landscapes and ecosystems. Taking this into account there are a number of environmental principles in section 2 of the National Environmental Management Act that are applicable to sand mining. For instance, section 2(4)(a)(i) and (ii) states as follows:

> (4) (a) Sustainable development requires the consideration of all relevant factors including the following:

(i) That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;
(ii) that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;

Sand mining is an activity that can result in the disturbance of ecosystems, loss of biological diversity, pollution and degradation of the environment. The environmental principles in the Act demand that such impacts be avoided, or where they cannot be altogether avoided, are minimised and remedied. With sand mining it is virtually impossible to avoid an impact altogether so sand miners must minimise and remedy the impacts that they do cause.

Section 2(4)(a)(v) states:

(v) that the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource;

Sand mining involves the use and exploitation of a non-renewable natural resource. The environmental principles demand that such exploitation is responsible and equitable and takes into account the consequences of the depletion of the resource. The environmental management mechanisms contained in the Mineral and Petroleum Resources Development Act and the National Environmental Management Act do, to a large extent, ensure that the exploitation of sand is done responsibly and equitably. What the two statutes fail to deal with, though, is the consequences of depletion of the resource. The inevitable depletion of sand after long-term extraction does not appear to influence the

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permitting authority under the Mineral and Petroleum Resources Development Act when decisions are made to grant sand mining permits.

Section 2(4)(r) states:

> (r) Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure.

Sand mining is known to take place in coastal shores and estuaries. These environments are specifically mentioned in the principles as being sensitive, highly dynamic or stressed and require specific attention in management and planning procedures, especially where they are subject to significant human resource usage.

These environmental principles are important because organs of State must take these principles into account when taking any action, such as a decision, that may significantly affect the environment. Thus, when the Department of Mineral Resources is evaluating a sand mining application it must consider these principles before making a decision on the application. The Mineral and Petroleum Resources Development Act, in fact, goes one step further by making the principles contained in section 2 of the National Environmental Management Act directly applicable to all mining operations and by making it a requirement that all mining operations are conducted in accordance with the

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generally accepted principles of sustainable development.[101] Consequently, mineral regulators may not authorise mining that does not conform to these principles.

3.2.2.2.2 Environmental authorisations as contemplated in section 24 of the National Environmental Management Act

Another way in which the National Environmental Management Act regulates sand mining is through section 24. The purpose of section 24 is essentially twofold:

- It empowers the Minister of Environmental Affairs to identify activities that may not commence unless permission, in the form of an environmental authorisation, has been granted by a competent authority for a listed activity to commence.[102] These activities are so identified because they have the potential to cause harm to the environment and the impact on the environment of these activities must be 'considered, investigated, assessed and reported on'[103] before a competent authority can grant, or deny, permission for the activity to commence.

- It provides for the Minister of Environmental Affairs to make regulations that lay out the procedure for and requirements of applying to a competent authority for an environmental authorisation to commence a listed activity.[104] These

[101] Section 37.
[102] This power is given in section 24(2)(a).
[103] Section 24(1).
[104] This power is given in section 24(5).

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regulations are known as the Environmental Impact Assessment (EIA) regulations.

The fundamental question that needs to be asked at this point is: does sand mining fall within the ambit of section 24? In other words, does sand mining appear on the list of activities as contemplated in section 24? If it does appear on the list then sand mining is subject to the EIA regulations and any person who wishes to commence the activity of sand mining must seek an environmental authorisation in terms of section 24 before commencement.

The second fundamental question that needs to be asked is: are there any activities associated with or incidental to sand mining that appear on the list of activities as contemplated in section 24. As mentioned in Chapter 2, sand mining comprises of a number of different activities. For example, sand mining may entail the construction of an access road, the clearing of vegetation or the altering of the banks of a river. These sub-activities may in themselves be listed activities as contemplated in section 24. If this is the case then a sand miner would have to comply with the EIA regulations and seek an environmental authorisation for each sub-activity prior to commencement.

Before commencing my investigation into these two questions it is important to note that the EIA regime in South Africa has recently undergone a change. The previous EIA regime, as contemplated in section 24 of the National Environmental Management Act, existed between 03 July 2006 - when the first list of activities and set of EIA

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regulations came into force - and 02 August 2010. The current EIA regime has existed since 02 August 2010 when a new list of activities and set of regulations, replacing the previous ones, came into force. Because the case studies and case law that I will discuss later in this dissertation refer to the previous EIA regime it is necessary for me to discuss the previous regime in addition to the current regime.

3.2.2.2.3 The EIA regime that existed between 03 July 2006 and 02 August 2010

On 21 April 2006 the Minister of Environmental Affairs exercised his power in terms of section 24 of the National Environmental Management Act for the first time and published a list of activities and a set of EIA regulations.[105] The list of activities was comprised of two separate lists - Listing Notice 1[106] and Listing Notice 2[107]. These lists and regulations[108] came into force on 03 July 2006[109]. An examination of Listing Notice 1 and Listing Notice 2 reveals that sand mining, as an activity, does not appear on either list. However, Listing Notice 1 contains the following two activities:

> 8 Reconnaissance, prospecting, mining or retention operations as provided for in the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), in respect of such permissions, rights, permits and renewals thereof.
>
> 9 In relation to permissions, rights, permits and renewals granted in terms of 8 above, or any other similar right granted in terms of previous mineral or mining legislation, the undertaking of any prospecting or mining related activity or operation within a prospecting, retention or mining area, as defined in terms of section 1 of Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).

[105] *GG* 28753, 21 April 2006.
[106] *GNR* 386, 21 April 2006.
[107] *GNR* 387, 21 April 2006.
[108] The regulations were published in *GNR* 385, 21 April 2006, and are known as the EIA Regulations, 2006.
[109] *GNR* 612, 23 June 2006.

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and Listing Notice 2 contains the following two activities:

> 7 Reconnaissance, exploration, production and mining as provided for in the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), as amended in respect of such permits and rights.
>
> 8 In relation to permits and rights granted in terms of 7 above, or any other right granted in terms of previous mineral legislation, the undertaking of any reconnaissance, exploration, production or mining related activity or operation within a exploration, production or mining area, as defined in terms of section 1 of Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).

Given the fact that sand mining requires a mining permit in terms of the Mineral and Petroleum Resources Development Act and is undertaken within a mining area it follows that the activity of sand mining would trigger either of the activities stated above and would, therefore, be subject to section 24 of the National Environmental Management Act. However, the inclusion by the Minister of these 'mining-related' activities in Listing Notice 1 and Listing Notice 2 immediately created a conflict with the environmental authorisation process under the Mineral and Petroleum Resources Development Act. There suddenly existed two separate environmental authorisation processes – one under the Mineral and Petroleum Resources Development Act and one under the National Environmental Management Act. The coexistence of these two processes was untenable and the result of this was that when the Minister promulgated Listing Notice 1 and Listing Notice 2 on 03 July 2006 he specifically excluded the coming into force of Activity 8 and 9 of Listing Notice 1[110] and Activity 7 and 8 of

[110] *GNR* 613, 23 June 2006.

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Listing Notice 2[111]. The consequence of this was that sand mining was excluded from the EIA regime as it existed between 03 July 2006 and 02 August 2010 and sand miners, therefore, were not required to seek an environmental authorisation as contemplated in section 24, before commencing the activity of sand mining.

Turning to other activities associated with, or incidental to, the activity of sand mining one finds the following activities listed in Listing Notice 1:

1m	The construction of facilities or infrastructure, including associated structures or infrastructure, for any purpose in the one in ten year flood line of a river or stream, or within 32 metres from the bank of a river or stream where the flood line is unknown, excluding purposes associated with existing residential use, but including - (i) canals; (ii) channels; (iii) bridges; (iv) dams; and (v) weirs.
4	The dredging, excavation, infilling, removal or moving of soil, sand or rock exceeding 5 cubic metres from a river, tidal lagoon, tidal river, lake, in-stream dam, floodplain or wetland.
5	The removal or damaging of indigenous vegetation of more than 10 square metres within a distance of 100 metres inland of the high-water mark of the sea.
6	The excavation, moving, removal, depositing or compacting of soil, sand, rock or rubble covering an area exceeding 10 square metres in the sea or within a distance of 100 metres inland of the high-water mark of the sea.
12	The transformation or removal of indigenous vegetation of 3 hectares or more or of any size where the transformation or removal would occur within a critically endangered or an endangered ecosystem listed in terms of section 52 of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).
15	The construction of a road that is wider than 4 metres or that has a reserve wider than 6 metres, excluding roads that fall within the ambit of another listed activity or which are access roads of less than 30 metres long.

[111] *GNR* 614, 23 June 2006.

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20 The transformation of an area zoned for use as public open space or for a conservation purpose to another use.

Either of the above activities could be triggered by a person who undertakes a sand mining operation. Thus, while a person contemplating undertaking a sand mining operation would not have been required to seek an environmental authorisation as contemplated in section 24 for the activity of sand mining itself, that person would have had to seek an environmental authorisation for any of the activities listed above if those activities were triggered during the course of the sand mining operation. Listing Notice 2 does not contain any activities associated with, or incidental to, sand mining apart from Activity 7 and 8 as discussed above.

3.2.2.2.4 The EIA regime as it currently exists since 02 August 2010

On 18 June 2010 the Minister of Environmental Affairs published a new list of activities and a new set of EIA regulations.[112] The new list is comprised of three separate lists – Listing Notice 1[113], Listing Notice 2[114] and Listing Notice 3[115]. These lists and regulations[116] came into force on 02 August 2010[117]. Corrections and amendments to the lists and the regulations were made on 30 July 2010[118], just prior to promulgation, and

[112] *GG* 33306, 18 June 2010.
[113] *GNR* 544, 18 June 2010.
[114] *GNR* 545, 18 June 2010.
[115] *GNR* 546, 18 June 2010.
[116] The regulations were published in *GNR* 543, 18 June 2010, and are known as the EIA Regulations, 2010.
[117] *GNR* 661, 662, 663 and 664, 30 July 2010.
[118] *GNR* 660, 30 July 2010.

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again on 10 December 2010[119]. Further amendments to the lists have been proposed on 10 December 2010[120] and are currently out for public comment.

An examination of Listing Notice 1, Listing Notice 2 and Listing Notice 3, once again reveals that sand mining, as an activity on its own, does not appear on either list. However, Listing Notice 1 contains the following two activities:

> 19 Any activity which requires a prospecting right or renewal thereof in terms of section 16 and 18 respectively of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).
>
> 20 Any activity requiring a mining permit in terms of section 27 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) or renewal thereof.

and Listing Notice 2 contains the following four activities:

> 20 Any activity which requires a mining right or renewal thereof as contemplated in sections 22 and 24 respectively of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).
>
> 21 Any activity which requires an exploration right or renewal thereof as contemplated in sections 79 and 81 respectively of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).
>
> 22 Any activity which requires a production right or renewal thereof as contemplated in sections 83 and 85 respectively of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).
>
> 23 Any activity which requires a reconnaissance permit as contemplated in section 74 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), excluding where such reconnaissance is conducted by means of a fly over.

Since sand mining requires a mining permit in terms of section 27 of the Mineral and Petroleum Resources Development Act it follows that the activity of sand mining

[119] *GNR* 1159, 10 December 2010.
[120] *GNR* 1103, 10 December 2010.

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would trigger Activity 20 of Listing Notice 1 and would, therefore, be subject to section 24 of the National Environmental Management Act. The other 'mining-related' activities mentioned above do not apply to the mining of sand. However, when the Minister promulgated Listing Notice 1 and 2 the conflict with the authorisation process under the Mineral and Petroleum Resources Development Act had not been resolved which meant that the inclusion of the above activities would still have created two separate but coexisting environmental authorisation processes. Hence, the Minister once again excluded the coming into force of the above 'mining-related' activities.[121] As a result, sand miners currently do not have to seek an environmental authorisation as contemplated in section 24 for the activity of sand mining.

Turning to other activities associated with, or incidental to, the activity of sand mining one finds the following activities listed in Listing Notice 1:

> 18 The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock from:
> (i) a watercourse;
> (ii) the sea;
> (iii) the seashore;
> (iv) the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever distance is the greater-
> but excluding where such infilling, depositing, dredging, excavation, removal or moving
> (i) is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority; or
> (ii) occurs behind the development setback line.
>
> 22 The construction of a road, outside urban areas,
> (i) with a reserve wider than 13,5 meters or,
> (ii) where no reserve exists where the road is wider than 8 metres, or

[121] See *GNR* 661 and 662, 30 July 2010.

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(iii) for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Notice 545 of 2010.

24 The transformation of land bigger than 1000 square metres in size, to residential, retail, commercial, industrial or institutional use, where, at the time of the coming into effect of this Schedule such land was zoned open space, conservation or had an equivalent zoning.

47 The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre -
(i) where the existing reserve is wider than 13,5 meters; or
(ii) where no reserve exists, where the existing road is wider than 8 metres -
excluding widening or lengthening occurring inside urban areas.

Either of the above activities could be triggered by a person who undertakes a sand mining operation. Thus, while a person contemplating undertaking a sand mining operation is not currently required to seek an environmental authorisation as contemplated in section 24 for the activity of sand mining itself, that person would have to seek an environmental authorisation for any of the activities listed above if those activities are triggered during the course of the sand mining operation. Listing Notice 2 does not contain any activities associated with, or incidental to, sand mining apart from Activity 20 to 23 as discussed above.

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3.2.2.2.5 Duty of care as contemplated in section 28 of the National Environmental Management Act

The third way in which the National Environmental Management Act may be used to regulate sand mining is through the 'Duty of Care' provision in section 28. In terms of section 28(1) '[e]very person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such

pollution or degradation from occurring, continuing or recurring …'. Since sand mining can cause significant degradation of the environment, sand miners are obliged to take reasonable measures to ensure that their sand mining activities do not cause significant degradation of the environment. Environmental authorities are able to enforce this provision against sand miners whether or not such sand miners possess any permit or authorisation. In fact this is a useful tool to use against any person who is causing significant degradation of the environment whether or not such person is legally authorised to do so. Section 28(4) empowers the Director-General or a provincial Head of Department to direct any person who fails to take reasonable measures to prevent degradation of the environment to commence taking such reasonable measures.

3.2.3 Alignment of the Mineral and Petroleum Resources Development Act and the National Environmental Management Act with respect to the environmental management of mining-related activities

In sub-section 3.2.2.1 and 3.2.2.2 above I discussed how the Mineral and Petroleum Resources Development Act and the National Environmental Management Act regulates the activity of sand mining and in sub-section 3.2.2.2.2 I described how the inclusion of mining activities in the list of activities as contemplated in section 24 of the National Environmental Management Act resulted in the creation of two separate coexisting environmental approval processes – one under the National Environmental Management Act and one under the Mineral and Petroleum Resources Development Act. Under this dualistic regime a sand miner would have to obtain an environmental authorisation from

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the Minister of Environmental Affairs in terms of section 24 of the National Environmental Management Act by conducting an environmental impact assessment process as set out in the EIA regulations and at the same time would have to obtain a mining permit from the Minister of Mineral Resources in terms of section 27 of the Mineral and Petroleum Resources Development Act, also by conducting an environmental impact assessment and submitting an environmental management programme or plan. This created duplication because the same environmental information would have to be submitted to both Ministers and, if either Minister refused the application, the activity could not go ahead.

This duplication was ultimately averted when the Minister of Environmental Affairs suspended the coming in to force of the listed activities relating to mining.[122] This suspension, however, did not obviate the fact that there existed in statute two separate environmental approval processes for mining activities. It was generally recognised by lawmakers that there needed to be one environmental approval process for mining and that one authority should issue an environmental authorisation for mining. The question was which authority should have the sole power to issue such an environmental authorisation. Parliament eventually decided that the Minister of Environmental Affairs should ultimately be the custodian of the environmental approval process for mining and should be the authority that issues an environmental authorisation for mining. The process of shifting environmental responsibilities from the Minister of Mineral Resources to the Minister of Environmental Affairs could not happen overnight, however, and so an elaborate plan was hatched to, firstly, confer on the Minister of

[122] See note 110, 111 and 121 supra.

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Mineral Resources the power to issue environmental authorisations for mining activities under section 24 of the National Environmental Management Act and then, after a period of time, to eliminate the Minister of Mineral Resources from the equation and let the power to issue environmental authorisations for mining activities under section 24 of the National Environmental Management Act revert back to the Minister of Environmental Affairs.

The first part of the plan entailed amending both the National Environmental Management Act and the Mineral and Petroleum Resources Development Act in order to empower the Minister of Mineral Resources to issue environmental authorisations for mining activities under section 24 of the National Environmental Management Act. The two statutes were duly amended[123] but there was a proviso. Any provision relating to mining would only come into operation 18 months after the date of commencement of section 2 of the National Environmental Management Amendment Act[124] or the date of commencement of the Mineral and Petroleum Resources Development Amendment Act[125], whichever date is the later.[126] This would mean that the Minister of Mineral Resources would first have to wait 18 months - after the amendments to both National Environmental Management Act and the Mineral and Petroleum Resources Development Act have come into operation – before he or she could start issuing environmental

[123] The National Environmental Management Act was amended by the National Environmental Management Amendment Act (Act No. 62 of 2008) and the Mineral and Petroleum Resources Development Act was amended by the Mineral and Petroleum Resources Development Amendment Act (Act No. 49 of 2008).
[124] Act 62 of 2008.
[125] Act 49 of 2008.
[126] See section 14(2) of Act 62 of 2008.

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authorisations under section 24 of the National Environmental Management Act for mining activities.

The second part of the plan entailed amending the National Environmental Management Act a further time to remove the Minister of Mineral Resources from the equation and transfer the power to issue environmental authorisations under section 24 of the National Environmental Management Act for mining activities back to the Minister of Environmental Affairs. Instead of creating another amendment Act to provide for this, however, lawmakers opted to package these further amendments into a schedule in Act 62 of 2008 and link it to section 13 of the Act. Again there was a proviso. Section 13 of the Act would only come into operation 18 months after the coming into operation of section 14(2). This would mean that the Minister of Mineral Resources would only be empowered to issue environmental authorisations under section 24 of the National Environmental Management Act for mining activities for a period of 18 months after which the power would revert back to the Minister of Environmental Affairs.

The plan, once set in motion, was, thus, designed to take a total of 36 months to complete. Once the National Environmental Management and Mineral and Petroleum Resources Development amendment Acts are put into operation a period of 18 months would elapse where nothing would happen. Then the Minister of Mineral Resources will be conferred with the power to issue environmental authorisations under section 24 of the National Environmental Management Act for mining activities for a period of 18 months. Thereafter that power would revert back to the Minister of Environmental Affairs. Thus,

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after 36 months the Minister of Environmental Affairs would emerge as the sole custodian of the environmental approval process for mining activities.

To date the plan as described above has not run its full course. The National Environmental Management Amendment Act commenced, with the exception of section 13 of the Act, on 01 May 2009.[127] And this is where the plan stalled. The Mineral and Petroleum Resources Development Amendment Act has not commenced yet which means that section 14(2) of Act 62 of 2008 cannot commence which means that the 36-month plan, as described above, cannot be set in motion. The status quo with respect to the environmental approval of mining activities, thus, remains which is that the environmental approval process for mining activities is dealt with under the Mineral and Petroleum Resources Development Act and the power to approve mining activities from an environmental perspective rests solely with the Minister of Mineral Resources. Any power afforded to the Minister of Environmental Affairs to regulate the environmental impacts of mining is restricted to the use of section 28 of the National Environmental Management Act as well as the use of section 24 to regulate certain listed activities associated with or incidental to mining.

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3.2.4 The National Water Act

A sand miner may fall within the ambit of the National Water Act if the miner engages in a 'water use'. There are a number of activities that are construed as 'water uses' and

[127] Proclamation No. 27 of 24 April 2009 as published in *GG* 32156.

these are listed in section 21 of the Act. A sand miner would typically engage in the following water uses:

- taking water from a water resource[128];
- impeding or diverting the flow of water in a watercourse[129]; and/or
- altering the bed, banks, course or characteristics of a watercourse[130].

It is rare for a sand miner to take water from a water resource unless the miner intends to wash the mined sand in order to obtain a more consistent particle size during the sieving process. Far more common is impeding or diverting the flow of water in a watercourse and altering of the bed and banks of a watercourse. This occurs where sand mining takes place in rivers.

A sand miner that engages in a water use must apply for a license to use water. This license is generally referred to as a 'Water Use License'. To obtain a Water Use License the miner must apply to the 'responsible authority' which is either the Minister of Water Affairs or a Catchment Management Agency to which the power to issue licenses has been delegated.[131] The procedure for license applications is set out in section 41 of the National Water Act. Water Use Licenses are generally issued with conditions and the license may be reviewed and amended at stipulated time periods.[132]

[128] Section 21(a).
[129] Section 21(c).
[130] Section 21(i).
[131] Section 40.
[132] Sections 49 to 52.

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It is important to note that the Mineral and Petroleum Resources Development Act also binds the holder of a mining permit to the requirements of the National Water Act. Section 27(7)(b) of the Mineral and Petroleum Resources Development Act states that the holder of a mining permit may 'subject to the National Water Act, 1998 (Act No. 36 of 1998) … use water from any natural spring, lake, river or stream situated on, or flowing through, such land … or sink a well or borehole required for use relating to prospecting or mining …'.

In addition, sand miners who use water or who potentially have an impact on a water resource must comply with the 'Regulations on use of water for mining and related activities aimed at the protection of water resources'.[133] These regulations contain a number of requirements aimed at protecting water resources. For instance, a miner must notify the Department of Water Affairs 'by the fastest possible means of any emergency incident or potential emergency incident involving a water resource at or incidental to the operation of a mine'.[134] Other requirements include restricting the location of a mine and the placement of any residue, dam or reservoir[135], restricting the use of material which may cause pollution of a water resource[136], specifying the capacity requirements of clean and dirty water systems[137] and the obligation to take various reasonable measures to protect water resources[138]. The regulations also contain requirements specifically relating

[133] *GNR* 704, 04 June 1999.
[134] Section 2(c).
[135] Section 4.
[136] Section 5.
[137] Section 6.
[138] Section 7.

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to winning sand and alluvial minerals from a watercourse or estuary which state as follows:

> 10. Additional regulations relating to winning sand and alluvial minerals from watercourse or estuary.
>
> (1) No person may-
>
> (a) extract sand, alluvial minerals or other materials from the channel of a watercourse or estuary, unless reasonable precautions are taken to-
>
> (i) ensure that the stability of the watercourse or estuary is not affected by such operations;
>
> (ii) prevent scouring and erosion of the watercourse or estuary which may result from such operations or work incidental thereto;
>
> (iii) prevent damage to in-stream or riparian habitat through erosion, sedimentation, alteration of vegetation or structure of the watercourse or estuary, or alteration of the flow characteristics of the watercourse or estuary; or
>
> (b) establish any slimes dam or settling pond within the 1:50 year flood-line or within a horizontal distance of 100 metres of any watercourse or estuary.
>
> (2) Every person winning sand, alluvial minerals or other materials from the bed of a watercourse or estuary must-
>
> (a) construct treatment facilities to treat the water to the standard prescribed in Government Notice No. R991 dated 26 May 1984 as amended or by any subsequent regulation under the Act before returning the water to the watercourse or estuary;
>
> (b) limit stockpiles or sand dumps established on the bank of any watercourse or estuary to that realised in two days of production, and all other production must be stockpiled or dumped outside of the 1:50 year flood-line or more than a horizontal distance of 100 metres from any watercourse or estuary; and
>
> (c) implement control measures that will prevent the pollution of any water resource by oil, grease, fuel or chemicals.[139]

The regulations also permit the Minister to 'require any person in control of a mine or activity to arrange for a technical investigation or inspection, which may include an independent review, to be conducted on any aspect aimed at preventing pollution of a

[139] Section 10.

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water resource or damage to the in-stream or riparian habitat connected with or incidental to the operation or any part of the operation of a mine or activity.'[140]

3.3 Land use planning regulation

Sand mining necessarily involves the use of land and, as such, is subject to land use planning regulation. Land is a limited resource and there is a myriad ways in which land can be used. Land can be used for, *inter alia*, growing crops, raising livestock, providing habitat for wild animals, constructing buildings for residential purposes, creating parks for public use, establishing industries, disposing of waste and, of course, to mine minerals. As a country develops socially and economically so the pattern of land use will change over time. For instance, as a country's population grows and increasing numbers of people migrate from rural areas to urban areas in search of housing and employment it will be expected that the urban edge would expand and more land will be used for residential purposes. If the economy is doing well then more land will be used to establish industries to create employment.

Because land is a limited resource and land use patterns naturally change over time it is important that land use is regulated to ensure that it takes place in a structured manner and that the different uses of land take place in appropriate areas. It is also important to conduct forward planning to anticipate and manage changes in land use patterns. To achieve this, a State would generally employ a land use planning and management regime that would contain a number of tools to manage land use. A typical

[140] Section 12(1).

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tool would be a 'zoning scheme' that would assign or zone particular parcels of land for particular land uses. Land use on zoned parcels of land will be restricted to the land use that has been assigned to that parcel by land use planners.

3.3.1 Constitutional and regulatory mandate

Land-use planning, as a separate functional area, is not listed in the Constitution but is seen to fall under the general area of 'planning' which does appear in the Constitution. In this regard all three spheres have been afforded 'planning' powers. 'Regional planning and development' has been assigned to both national and provincial government (part A of schedule 4), 'provincial planning' has been assigned exclusively to provincial government (part A of schedule 5), and 'municipal planning' has been assigned to local government with oversight from provincial and national government (part B of schedule 4).

The function of 'land use planning' or 'land use management' does not appear in schedule 4 or 5 of the Constitution. However, part A of schedule 4 assigns to the national and provincial spheres of government, on a concurrent basis, the function of 'regional planning and development'. Part B of schedule 4 assigns to local government the function of 'municipal planning' but national and provincial government may also exercise this function provided they restrict themselves to monitoring and supporting local government and regulating the exercise by municipalities of their executive

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authority.[141] Part A of schedule 5 assigns exclusively to provincial government the function of 'provincial planning'.

The planning-related functions mentioned in schedule 4 and 5 are very broad and no clarification is provided as to what exactly is meant by the term 'planning'. There is no doubt that the State must plan for all sorts of things from the provision of services to the provision of housing to the facilitation of industrial development. The question is whether these planning-related terms extend to include land use planning and management and, if so, to what extent does each sphere of government plan for and regulate the use of land. The term 'municipal planning', in particular, has come under intense scrutiny by the Courts[142] and, fortunately, the Courts have provided some clarification on whether or not the term incorporates the development of land and the extent to which municipalities can control the development of land in their areas of jurisdiction.

Gildenhuys J, in *City of Johannesburg Metropolitan Municipality v Gauteng Development Tribunal & others*[143], took a very restrictive view of the term and determined that 'municipal planning' is limited to 'planning for it, promoting it and participating therein' but did not extend as far as 'implementation'.[144] In his view

[141] Section 155(6)(a) and (7) of the Constitution.
[142] See, for example, the following series of judgments involving the City of Johannesburg Metropolitan Municipality and the Gauteng Development Tribunal: *City of Johannesburg Metropolitan Municipality v Gauteng Development Tribunal & others (Mont Blanc Projects and Properties (Pty) Ltd and Another as Amici Curiae) (05/6181)* 2008 (4) SA 572 (W); *City of Johannesburg v Gauteng Development Tribunal & others* 2010 (2) SA 554 (SCA); and *City of Johannesburg Metropolitan Municipality v Gauteng Development Tribunal & others* 2010 (6) SA 182 (CC).
[143] 2008 (4) SA 572 (W).
[144] Ibid at paragraphs 55 and 56.

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municipalities did not possess an original and exclusive constitutional power to control and regulate land use within their areas of jurisdiction. His interpretation of the Constitution was that 'development is primarily a national and provincial competence'[145] and that section 153(b) of the Constitution … which provides that a municipality must participate in national and provincial development programmes … presupposes that national and provincial government have executive authority in relation to development within the area of jurisdiction of a municipality'[146]. He states further

> 'The only provision in the Constitution which requires a municipality to involve itself in development in a manner other than by planning for it, is section 153(b), which enjoins a municipality to participate in national and provincial development programmes. This involves a duty. The section does not bestow any exclusive authority on a municipality in respect of development.'[147]

In *City of Johannesburg v Gauteng Development Tribunal*[148], Nugent J disagreed completely with this view and found that 'the word "planning", when used in the context of municipal affairs, is commonly understood to refer to the control and regulation of land use'[149] and that the proper constitutional interpretation of the term 'municipal planning' would reserve for municipalities 'the authority to micro-manage the use of land for any such development'.[150] The view taken by Nugent J was conferred with by Jafta J in *City of Johannesburg Metropolitan Municipality v Gauteng Development Tribunal & others*[151] who stated

[145] Ibid at paragraph 56.
[146] Ibid at paragraph 57.
[147] Ibid at paragraph 58.
[148] 2010 (2) SA 554 (SCA).
[149] Ibid at paragraph 41.
[150] Ibid.
[151] 2010 (6) SA 182 (CC).

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> 'Returning to the meaning of "municipal planning", the term is not defined in the Constitution. But "planning" in the context of municipal affairs is a term which has assumed a particular, well-established meaning which includes the zoning of land and the establishment of townships. In that context, the term is commonly used to define the control and regulation of the use of land. There is nothing in the Constitution indicating that the word carries a meaning other than its common meaning which includes the control and regulation of the use of land. It must be assumed, in my view, that when the Constitution drafters chose to use "planning" in the municipal context, they were aware of its common meaning. Therefore, I agree with the Supreme Court of Appeal that in relation to municipal matters the Constitution employs "planning" in its commonly understood sense. As a result I find that the contested powers form part of "municipal planning".'[152]

The difficulty with the functional area of 'planning' is that the Constitution confers this area on all spheres of government without clarifying what the term means. But as Jafta J explains '[t]he Constitution confers different planning responsibilities on each of the three spheres of government in accordance with what is appropriate to each sphere'.[153] He explains further

> 'It is, however, true that the functional areas allocated to the various spheres of government are not contained in hermetically sealed compartments. But that notwithstanding, they remain distinct from one another. This is the position even in respect of functional areas that share the same wording like roads, planning, sport and others. The distinctiveness lies in the level at which a particular power is exercised. For example, the provinces exercise powers relating to "provincial roads" whereas municipalities have authority over "municipal roads". The prefix attached to each functional area identifies the sphere to which it belongs and distinguishes it from the functional areas allocated to the other spheres. In the example just given, the functional area of "provincial roads" does not include "municipal roads". In the same vein, "provincial planning" and "regional planning and development" do not include "municipal planning".'[154]

3.3.2 A brief introduction to South Africa's land use planning and management regime

Prior to the current constitutional regime South Africa consisted of four provinces, excluding the homelands and self-governing territories, *viz* Transvaal, Orange Free State,

[152] Ibid at paragraph 57.
[153] Ibid at paragraph 53.
[154] Ibid at paragraph 55.

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Cape Province and Natal. In each of these provinces there existed an Ordinance that regulated land use planning and management in that province. These ordinances are as follows: the Town-Planning and Townships Ordinance 15 of 1986 (Transvaal); Land Use Planning Ordinance 15 of 1985 (Cape Province); Townships Ordinance 9 of 1969 (Orange Free State); and Town Planning Ordinance 27 of 1949 (Natal). When South Africa transitioned to the present constitutional regime in 1996 the four provinces were scrapped and the territory was divided into nine provinces. At the same time a system of 'wall to wall' municipalities was introduced meaning that all land in South Africa falls under the jurisdiction of a particular municipality. The pre-constitutional legislative regime for land use planning survived this transition[155] with the effect that the four provincial Ordinances remained in force. Currently only the Natal Ordinance has been replaced with a new statute, the KwaZulu-Natal Planning and Development Act.[156] The other three Ordinances remain in force. This has resulted in a fragmented legislative framework where the existing statutes straddle provincial boundaries and some parts of South Africa fall outside the jurisdictions of these statutes. As Jafta J put it '[t]his situation cries out for legislative reform'.[157] In addition, there are two national statutes

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[155] See *City of Johannesburg v Gauteng Development Tribunal & others* (note 148 supra) at paragraph 5.
[156] Act 6 of 2008. This Act came into operation on 01 May 2010 and repeals the Town Planning Ordinance 27 of 1949 that was applicable in the area incorporated in the erstwhile province of Natal. It bears mentioning that Gauteng and the Western Cape also developed planning Acts to replace their respective Ordinances viz the Western Cape Planning and Development Act (Act No. 7 of 1999) and the Gauteng Planning and Development Act (Act No. 3 of 2003). However, these Acts were never proclaimed. For a detailed explanation of the Western Cape Act see JM Pienaar 'The role of the Western Cape Planning and Development Act 7 of 1999 in the promotion of development' (2001) 3 *Stellenbosch Law Review* 450.
[157] *City of Johannesburg Metropolitan Municipality v Gauteng Development Tribunal & others* (CC) (note 151 supra) at paragraph 33.

that also survived the transition *viz* the Physical Planning Act (1967)[158] and the Physical Planning Act (1991).[159]

In an attempt to unify this fragmented framework and bring it in line with the Constitution, the Department of Rural Development and Land Reform (previously Agriculture and Land Affairs) has drafted the Spatial Planning and Land Use Management Bill[160] which will replace many of the pre-Constitution land use statutes and provide a more integrated regulatory framework. Until this bill becomes law, however, the current fragmented status remains.

Despite the fact that the current land use planning and management regime is made up of a raft of pre-Constitution statutes, the Constitution nevertheless demands that all statutes are interpreted through its filter.

In this context I now turn to discuss how the activity of sand mining is regulated under South Africa's land use planning and management regime.

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[158] Act 88 of 1967. This Act has been mostly repealed by Act 125 of 1991 but some sections are still in operation.
[159] Act 125 of 1991. There are other national statutes such as the Subdivision of Agricultural Land Act (Act No. 70 of 1970) and the Development Facilitation Act (Act No. 67 of 1995) but these are outside the focus of this dissertation.
[160] Published in *GG* 34270, 6 May 2011.

3.3.3 Legislative framework

3.3.3.1 National statutes

The two statutes that are relevant to this discussion are the Physical Planning Act 88 of 1967 and the Physical Planning Act 125 of 1991. Both Acts appear to protect mineral rights and shield them from key planning provisions. In the 1967 Physical Planning Act, section 5 empowers the Minister[161] to establish 'controlled areas' and section 6(1) of the Act places restrictions on land use in these controlled areas. Section 6(2)(c), however, exempts prospecting and mining from these restrictions.[162] In other words, the use of land for prospecting and mining is, by inference, permitted in controlled areas subject, presumably, to any other constraining legislation.

Section 27(1) (b) and (c) of the 1991 Physical Planning Act places restrictions on the use of land in areas in which a 'regional structure plan' or an 'urban structure plan' applies. These provisions essentially restrict land use that is inconsistent with the applicable regional or urban structure plan. Section 27(2) of the Act then, essentially, exempts from these restrictions the use of land for prospecting and mining.[163] In other words, the use of land for prospecting and mining cannot be regarded as being

[161] The current Minister would be the Minister of Rural Development and Land Reform.

[162] Section 6(2)(c) reads

> (2) Subsection (1) shall not apply in respect of -
>
> (c) the use of land for prospecting or mining for base minerals or for any other purpose for which authority, permission or consent is required in terms of any other law or condition contained in the title deed of the land.

[163] The section reads as follows

> (2) The provisions of subsection (1) (b) and (c) shall not apply in respect of any right of any person to prospect for or to mine any mineral as defined in section 1 of the Minerals Act, 1991, or the use of any land for prospecting or mining purposes, or for purposes connected therewith.

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inconsistent with any regional or urban structure plan that may apply to the land in question.

Section 27(2) of the 1991 Physical Planning Act came under scrutiny in *City of Cape Town v Maccsand*[164] where the Western Cape Minister of Local Government, Environmental Affairs and Development Planning (the fourth respondent in the case) became concerned that this provision could be interpreted to mean that the holder of a mining right or mining permit is exempt from the requirements of the Land Use Planning Ordinance and the regulations and zoning scheme regulations promulgated under the Ordinance.[165] In oral argument the Minister submitted that such an interpretation would be constitutionally invalid because it would infringe on the Province's exclusive 'provincial planning' functional area as assigned to it by the Constitution.[166] The only way in which the 1991 Physical Planning Act could validly intervene in a 'provincial planning' functional area would be if it is shown that such an intervention is justified in terms of section 44(2) of the Constitution.[167] None of the parties in this case made such a claim, however. The Provincial Minister nevertheless brought a conditional counter-application before the Court seeking a declarator that, in the event that the Court finds

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[164] Note 256 infra.
[165] A key planning tool in the Land Use Planning Ordinance is the preparation of structure plans in terms of section 4.
[166] Andrew Breitenbach SC and Ron Paschke Oral argument for Minister of Local Government, Environmental Affairs and Development Planning (Fourth Respondent) in *City of Cape Town v Maccsand (Pty) Ltd and others* (note 256 infra) at paragraph 27.
[167] Ibid at paragraphs 27 to 29. Section 44(2) of the Constitution provides:

> Parliament may intervene, by passing legislation in accordance with section 76(1), with regard to a matter falling within a functional area listed in Schedule 5, when it is necessary -
> (a) to maintain national security;
> (b) to maintain economic unity;
> (c) to maintain essential national standards;
> (d) to establish minimum standards required for the rendering of services; or
> (e) to prevent unreasonable action taken by a province which is prejudicial to the interests of another province or to the country as a whole.

that the only reasonable interpretation of section 27(2) of the 1991 Physical Planning Act is that it exempts the holder of a mining right or mining permit from the requirements of the Land Use Planning Ordinance and the regulations and zooming scheme regulations promulgated under the Ordinance, section 27(2) of the 1991 Physical Planning Act is unconstitutional and invalid.[168] At the conclusion of the case, however, Davis J, having considered other evidence put forward in the case, concluded that the holder of a mining right or mining permit must, irrespective of other legislation, comply with the requirements of the Land Use Planning Ordinance and its regulations. As a result he did not deal with the Provincial Minister's conditional counter-application.

3.3.3.2 Provincial statutes

As mentioned previously there are three provincial Ordinances that operate in the areas incorporated in the erstwhile provinces of Transvaal, Orange Free State and Cape Province and there is a provincial Act that operates in the current province of KwaZulu-Natal. All four statutes have similarities in that they all confer planning powers on a provincial authority, be it a board[169] or commission[170], and they all enable local authorities to establish 'town planning schemes' or 'zoning schemes'. With respect to the protection of mineral rights both the Transvaal and the Orange Free State Ordinances appear to protect mineral rights but the rights protected are in terms of the old order

[168] Ibid at paragraph 11.1.
[169] The Transvaal and Orange Free State Ordinances establish a 'Township Board' in each province. The Cape Province Ordinance establishes a 'Town-planning Committee' as well as a 'Planning Advisory Board'.
[170] The KwaZulu-Natal Planning and Development Act establishes a 'Planning and Development Commission'.

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mineral legislation ie in terms of the Mining Rights Act[171] and the Minerals Act[172]. These Acts have been repealed by the Mineral and Petroleum Resources Development Act, however, the rights conferred in terms of those Acts would continue to exist provided the rights-holders thereof converted their rights to new order rights in terms of the Mineral and Petroleum Resources Development Act. Any reference to mineral rights in the provincial Ordinances would, thus, be construed to refer to mineral rights in terms of current minerals legislation despite the fact that the Ordinances have not been amended appropriately.

The KwaZulu-Natal Planning and Development Act also protects mineral rights and, because the Act was passed in 2010, the rights referred to are in terms of the Mineral and Petroleum Resources Development Act. The Cape Province Ordinance does not refer to mineral rights at all but this does not mean that the Ordinance does not regulate mining. As I will elaborate in section 3.4.2.3 below, the zoning scheme regulations in terms of the Ordinance do regulate mining activities.

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3.3.3.2.1 Townships Ordinance 9 of 1969 (Orange Free State)

There is only one reference to mineral rights in the Orange Free State Ordinance and that is section 8(2) which requires a landowner, who wishes to establish a township, to lodge with their application the 'written consent of the lessee of the mineral rights, the holder of

[171] Act 20 of 1967.
[172] Act 50 of 1991. A concise overview of mineral rights from the 1800s to the 1991 Minerals Act can be found in FT Cawood and RCA Minnitt 'A historical perspective on the economics of the ownership of mineral rights ownership' (1998) *The Journal of the South African Institute of Mining and Metallurgy* 369.

the prospecting contract or the owner of the mineral rights'. By inference, then, mineral rights take precedence over township developments.

3.3.3.2.2 Town-Planning and Townships Ordinance 15 of 1986 (Transvaal)

The Transvaal Ordinance contains several provisions that protect mineral rights. Firstly, a local authority is prohibited from preparing a town-planning scheme in respect of land which is defined as 'proclaimed'[173] in terms of the Mining Rights Act and on which 'prospecting, digging or mining operations are being carried out' unless 'such land is situated within an approved township or within a township in respect of which a notice as contemplated in section 111 [of the Ordinance] was published'.[174] Furthermore, if any land to which a town-planning scheme is already in operation becomes 'proclaimed land' then the town-planning scheme will no longer apply to that land.[175] However, if the proclaimed land in question has, in terms of section 184 of the Mining Rights Act, been reserved for the purposes of a township and, either an application to establish a township has been made under the Ordinance or the local authority has taken steps to establish a township, the local authority concerned may proceed and prepare a town-planning scheme for that land.[176] A local authority may also prepare a town-planning scheme for proclaimed land if the holder of any mining title in respect of that land requests such an

[173] Proclaimed land was a class of land in terms of the Mineral Rights Act which was 'held under claims where the surface rights were owned either by the State or by private individuals'. Op cit note 172 at 373.
[174] Section 21(1)(a) and (b).
[175] Subsection (2).
[176] Subsection (3)(a).

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action but only if the land is not being used for mining purposes and the written consent of the Director General: Mineral and Energy Affairs is obtained.[177]

Secondly, in the case of deproclaimed land, a local authority may prepare a town-planning scheme in respect of that land if a 'notice of intention to deproclaim land is published in terms of section 44 (3) of the Mining Rights Act, 1967'.[178] Such a town-planning scheme may not, however, 'contain any provision which affects any title, right or permit contemplated in section 44 (4) of the Mining Rights Act, 1967'.[179] The concept of 'proclaimed land' no longer exists in South Africa because the 1991 Minerals Act abolished the various classes of land provided for by the Mining Rights Act.[180] As a result it is probably safe to say that sections 21 and 22 of the Ordinance have become superfluous and would have no force and effect under the current mineral rights regime.

Chapter III of the Ordinance deals with the establishment of townships by the owner of land and there are various requirements in this regard. Conveniently for mineral rights holders, however, the Administrator is able to exempt from any provision of this Chapter 'any person engaged in bona fide mining operations'.[181] Furthermore, any person is permitted to 'use land for the housing of employees of a mining undertaking' where 'a surface right permit has been issued in terms of the Mining Rights Act, 1967'.[182]

[177] Subsection (3)(b).
[178] Section 22(1).
[179] Section 22(2).
[180] Cawood and Minnitt op cit note 172 at 371 and 372.
[181] Section 66(3)(b).
[182] Section 66(2)(a).

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Where the establishment of a township is contemplated on land, consent to such establishment must be obtained from the following persons[183]: the holder, usufructuary or lessee of any mineral rights or the holder of rights in terms of a prospecting contract[184]; or the holder of a notarial deed[185]. A person wishing to establish a township is able to apply to the Administrator, in terms of section 4 of the Expropriation of Mineral Rights (Townships) Act (Act No. 96 of 1969), to expropriate the rights to minerals[186] and if such an application is made then neither the Administrator nor the local authority may approve an application to establish a township or establish a township itself until such time as the rights have been expropriated.[187]

If a township owner is divested of all ownership rights where 'any public place or street or any portion thereof is closed in terms of section 67 or 68 of the Local Government Ordinance, 1939, and the closing was not necessary to effect an alteration, amendment or total or partial cancellation of the general plan of an approved township', the Ordinance provides that any such divestment does not affect any right to minerals.[188] Finally, the Ordinance fetters the power of the Administrator to declare a township an illegal township by making this power subject to any law relating to mining.[189]

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[183] Refer to the following sections of the Ordinance: 69(5)(a), 69(5)(b), 69(5)(b)(i)(aa), 107(2)9a), 107(2)(b), 107(2)(i)(aa).
[184] In the case where mineral rights have been severed from ownership of the land and the owner of land has granted a lease of the rights to minerals or has entered into a prospecting contract, either or both of which is or are registered in terms of the Deeds Registries Act, 1937.
[185] In the case where the owner has executed a notarial deed contemplated in section 8 of the Precious Stones Act, 1964 or section 19(1) of the Mining Rights Act, 1967.
[186] See sections 69(5)(b)(ii) and 107(2)(ii).
[187] See sections 71(1)(b, 98(1)(b) and 109(1)(b)(ii).
[188] Section 91(4).
[189] Section 129.

3.3.3.2.3 KwaZulu-Natal Planning and Development Act 6 of 2008 (KwaZulu-Natal)

It is interesting to note that mining is included in the definition of 'development' in the Act[190] and so any reference to land development in the Act includes the development of land for mining purposes. The Act provides that a municipality must take into account the impact on existing mineral rights when determining the merits of any proposal to: adopt, replace or amend a scheme[191]; subdivide or consolidate land[192]; develop land situated outside the area of a scheme[193]; alter, suspend or delete a restriction relating to land[194]; or permanently close a municipal road or public place[195].

Chapter 6 of the Act deals with the alteration, suspension and deletion of restrictions relating to land. Section 60(3) specifically states that '[t]his Chapter does not authorise the suspension or removal of any mineral right registered against the title of any land'.

The Draft Users Manual on the KwaZulu-Natal Planning and Development Act, 2008 issued by the KwaZulu-Natal Department of Co-operative Governance and

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[190] The definition is as follows: 'in relation to any land, means the erection of buildings and structures, the carrying out of construction, engineering, mining or other operations on, under or over land, and a material change to the existing use of any building or land for non-agricultural purposes'.
[191] Section 12(e).
[192] Section 25(e).
[193] Section 42(e).
[194] Section 64(e).
[195] Section 73(e).

Traditional Affairs confirms that, in areas not administered by a scheme, an application to the municipality is required for mining operations.[196]

3.3.3.2.4 Land Use Planning Ordinance 15 of 1985 (Cape Province)

As mentioned previously, the Land Use Planning Ordinance does not mention mineral rights at all. One can, therefore, infer that the Ordinance does not specifically protect mineral rights. It does, however, in terms of its zoning scheme regulations, regulate where mining may take place and this will be explained further in the next section.

3.3.3.3 Regulation of sand mining at municipal level

Municipalities, as has already been established in 3.3.1 above, have an original and exclusive constitutional power to control and regulate land use within their areas of jurisdiction. Municipalities exercise this power by using two key planning tools: Spatial Development Frameworks; and town-planning or zoning schemes. A Spatial Development Framework, which must form part of a municipality's Integrated Development Plan[197], is a 'strategic, indicative and flexible forward planning tool to guide planning and decisions on land development'.[198] It is a broad framework within which land use management decisions can be made. A town-planning or zoning scheme is more focused than a spatial development framework and aims to regulate the use of

[196] KwaZulu-Natal Department of Co-operative Governance and Traditional Affairs 'Draft Users Manual on the KwaZulu-Natal Planning and Development Act, 2008' at 125.
[197] Section 26(e) of the Local Government: Municipal Systems Act (Act No. 32 of 2000).
[198] White Paper on Spatial Planning and Land Use Management, Department of Land Affairs, 2001 at section 3.2.1.

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land on an erf-by-erf basis. It dictates the purpose for which land may be used and the restrictions applicable to such use and may go as far as dictating what buildings may be erected on land.

Many town-planning or zoning schemes in South Africa were created under the four provincial planning Ordinances discussed above and continue to exist under the present Constitutional regime. The key question that needs to be asked at this point is whether sand mining, as a land use, is regulated by any of these schemes. Since it is not practical to investigate all the schemes in South Africa I have decided to focus my attention on the schemes that exist within the area currently administered by the City of Cape Town.

The City of Cape Town currently has 27 individual local zoning schemes applicable in its area of jurisdiction.[199] This is a legacy from Apartheid when the City had separate residential areas for different population groups and before the City was unified into a single metropolitan municipality under the present Constitutional regime. Some of these schemes pre-date the Land Use Planning Ordinance, 1985 and were prepared either in terms of the Townships Ordinance, 1934 (Ordinance 33 of 1934) or the Black Communities Development Act, 1984 (Act 4 of 1984). When the Land Use Planning Ordinance came into operation on 01 July 1986, existing town-planning schemes were deemed to be 'zoning schemes' in terms of section 7(1) of the Ordinance.

[199] A list of existing zoning schemes is given on the City of Cape Town Planning and Building Development website: *http://www.capetown.gov.za/en/planningandbuilding/Publications/LandUseManagement/Pages/LegislationPart1.aspx* [Accessed 28 April 2011].

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All subsequent town-planning schemes developed by the City of Cape Town were developed in terms of section 9(2) of the Ordinance.

Of the 27 schemes that exist in the City of Cape Town I have chosen the following two schemes for this inquiry: Divisional Council of the Cape Town Planning Regulations and City of Cape Town: Zoning Scheme: Scheme Regulations.

3.3.3.3.1 Divisional Council of the Cape Town Planning Regulations

These regulations, which were prepared under the Townships Ordinance, 1934, provide for the following use zones[200]: Rural, Agricultural, Single Residential, Special Residential, General Residential, Commercial, Service Industry, General Industry, Noxious Industry, and Amenity. Each of these zones has a 'predominant use'[201] and a 'conditional use'[202]. A person wishing to use land for a use that is permitted as a predominant use in the zone in which it is situated does not require consent from council whereas the use of land for a use that is permitted as a conditional use would require permission from council.[203] The predominant and conditional uses for each use zone are set out in part II sections 5 to 14 of the regulations. Mining is not regarded as a predominant use in any of the use zones. However, mining is regarded as a conditional

[200] Part I Section 1 paragraph 13.
[201] Defined in Part I Section 2 as: 'in relation to land in any zone, means any use specified in this Statement as a predominant use, being a use that is permitted as of rights.'
[202] Defined in Part I Section 2 as: 'in relation to land and to any building in any zone means any use specified in this Statement as a use that is permitted only if the Council consents and only subject to such conditions as the Council may impose whether generally or in respect of the particular use or in respect of the particular site.'
[203] Part II Section 3 (a) and (b).

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use in the 'Rural' use zone.[204] Thus, the owner of a piece of land that is zoned 'Rural' in terms of these regulations is permitted to use that land for sand mining purposes provided the landowner obtains permission from council. This permission is obtained by applying for a 'departure'[205]. An application for a departure is made in terms of section 15(1)(a) of the Land Use Planning Ordinance[206] and the council may grant or refuse such an application. If, however, the land in question is not zoned 'Rural' the landowner would first have to apply to have the land rezoned to 'Rural' before applying for a departure because none of the other use zones permit mining as a conditional use. Such an application for rezoning would be made to Council in terms of section 16(1) of the Ordinance.[207]

3.3.3.3.2 City of Cape Town: Zoning Scheme: Scheme Regulations

These regulations were prepared before the Land Use Planning Ordinance came into effect but were wholly replaced by the Administrator, in terms of section 9(2) of the Ordinance, under Provincial Notice No. 4649 of 29 June 1990. These regulations, which

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[204] Section 12(b)(1) of Part II permits '[m]ining and processing of materials occurring naturally in vicinity' as a conditional use in the Rural Zone.

[205] A departure is defined in section 2 of the Land Use Planning Ordinance as:

(a) an altered land use restriction
(i) imposed in terms of section 15 (1);
(ii) imposed in terms of a condition by virtue of any provision of this Ordinance, or
(iii) that is legal in terms of any other provision of this Ordinance, or
(b) a use right granted on a temporary basis in terms of section 15.

[206] Section 15(1)(a) reads as follows 15:

An owner of land may apply in writing to the town clerk or secretary concerned, as the case may be
(i) for an alteration of the land use restrictions applicable to a particular zone in terms of the scheme regulations concerned, or
(ii) to utilise land on a temporary basis for a purpose for which no provision has been made in the said regulations in respect of a particular zone.

[207] Section 16(1) reads: '[e[ither the Administrator or, if authorised thereto by the provisions of a structure plan, a council may grant or refuse an application by an owner of land for the rezoning thereof.'

have been amended from time to time, divide land into the following use zones[208]: Single Dwelling Residential, Intermediate Residential, Grouped Dwelling Residential, General Residential, Special Business, General Business, General Commercial, General Industrial, Noxious Industrial, Show and Exhibition, Community Facilities, Public Open Space, Street Purposes, and Undetermined. A table in section 15(3) of the regulations provide, for each use zone, the following categories: 'buildings permitted' and 'buildings permitted only with the consent of the Council'. These categories are similar to the 'predominant use' and 'conditional use' discussed in 3.4.2.3.1 above. None of the use zones, permitted uses or consent uses in these regulations make provision for mining. This does not mean that the option to use land for mining is completely closed to a landowner, however. The landowner may still apply for a departure in terms of section 16(1) of the Land Use Planning Ordinance. The departure provision is a kind of catch-all provision that makes it possible for any use to occur on land provided that the City grants such a departure.

Having to administer 27 separate zoning schemes is clearly an untenable situation and so the City has recently embarked on a process to develop a unified Cape Town Zoning Scheme (CTZS) that will replace the fragmented zoning schemes currently in operation. According to the City of Cape Town website, a final draft of the CTZS has been submitted to the Department of Environmental Affairs and Development Planning in January 2011 for approval.[209] Part II of the scheme provides for a number of use zones and again each zone has either a 'permitted use' or a 'consent use'. The only use zones

[208] Section 11(1).
[209] *http://www.capetown.gov.za/en/planningandbuilding/Pages/UCZS.aspx* [Accessed 28 April 2011].

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that permit mining under this scheme are the Rural Zone and Agricultural Zone which permit mining as a consent use.

3.3.3.3.3 Other scheme regulations under the Land Use Planning Ordinance

Despite the fact that there were existing zoning schemes when the Land Use Planning Ordinance came into operation on 01 July 1986, the Ordinance obliged the Administrator[210] of the Province to make further scheme regulations as contemplated in section 9 of the Ordinance. Where existing schemes were in operation these further regulations would be supplemental and where there were no existing schemes these regulations would then apply.[211] The result of this was that the entire area of the Cape Province was subject to a scheme. Thus, in 1986 the Administrator made two separate scheme regulations: supplemental regulations to supplement existing zoning schemes (section 7 regulations); and new regulations to apply in all areas of the province not already covered by an existing scheme (section 8 regulations).[212]

The section 7 regulations do not provide for any land use zoning but this is not surprising as they merely supplement existing zoning schemes in which use zones are

[210] The successor-in-law to the Administrator is the provincial MEC for Development Planning.
[211] Section 7(2) read with section 8.
[212] The first zoning scheme regulations in terms of section 7 and section 8 of the Ordinance were promulgated under Provincial Notice No. 334 of 06 June 1986 and Provincial Notice No. 353 of 20 June 1986, respectively. In 1988 the Administrator made substantial amendments to these regulations. The section 7 regulations were substituted by a new set of regulations, promulgated under Provincial Notice No. 1047 of 05 December 1988, and the schedule to the section 8 regulations was replaced with a new schedule, promulgated under Provincial Notice No. 1048 of 05 December 1988. Both schemes were further amended in 1992, under Provincial Notice No. 465 of 25 September 1992, where the Administrator added an additional paragraph 6 to each set of regulations.

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already specified. These regulations provide for ancillary measures such as departures, subdivisions and removal of restrictions.

The section 8 regulations are a comprehensive set of regulations that apply in all areas of the Cape Province that are not already covered by a zoning scheme. These regulations provide for the following use zones[213]: Agricultural Zones I - II, Residential Zones I – V, Business Zones I – V, Industrial Zones I – III, Institutional Zones I – III, Resort Zones I – II, Open Space Zones I – III, Transport Zones I – III, Authority Zone, Special Zone, and Undetermined Zone. Like the other schemes discussed above, each of these zones has a 'primary use' and a 'consent use'. Primary uses are uses that are permitted in each specific use zone and are listed in column 2 of Table B in the regulations. Consent uses are uses that require consent from the Council and these are listed in column 3 of Table B. Referring to the use zone 'Industrial Zone III' in the table one sees that the primary use for this zone is 'mining'. No consent use is listed. The scheme 8 regulations, thus, specifically caters for the activity of mining. Thus, if a landowner wishes to conduct a sand mining activity on his or her land and the land is not zoned 'Industrial Zone III' the landowner can make an application to the council to have the land rezoned to 'Industrial Zone III', in terms of section 16(1) of the Ordinance, in order to allow mining to take place.

[213] Section 2.4.

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3.4 Soft law

Soft law refers to instruments that are not binding and are generally not enforceable. Such instruments may include best practice guidelines or codes of practice that guide a particular activity. There are no specific South African guidelines or codes of practice for sand mining. There are, however, some guidelines that have been developed for small-scale mining operations and these are, in most cases, applicable to sand mining. For instance, the Economic Commission for Africa has published a 'Compendium on Best Practices in Small-Scale Mining in Africa'[214] and the South African Department of Water Affairs has published a best practice guideline for small scale mining that focuses on water resource protection.[215] Further South African guidelines include a guideline for the rehabilitation of mined land[216] and a guideline developed by the Aggregate and Sand Producers Association of Southern Africa to assist its members in the quarry industry deal with community issues.[217] Internationally, there also exist several guidelines which may be used by South African sand miners to assist them conduct their activity sustainably and with minimum harm to the environment.[218]

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[214] Economic Commission for Africa 'Compendium on Best Practices for Small-Scale Mining in Africa' December 1992.
[215] Department of Water Affairs and Forestry 'Best Practice Guideline: A1.1 Small-Scale Mining – User Format' 2006. This guideline is one of a series of best practice guidelines for water resource protection in the South African mining industry that can be accessed at the Chamber of Mines website at http://www.bullion.org.za/Departments/Environment/Impact_guide.html.
[216] Chamber of Mines/Coaltech 'Guidelines for the rehabilitation of mined land' November 2007.
[217] Aggregate and Sand Producers Association of Southern Africa 'Guidelines for community engagement committees in the SA quarry industry' 30 September 2009.
[218] See for example: Western Australia Water and Rivers Commission 'Policy and Guidelines for Construction and Silica Sand Mining in Public Drinking Water Source Areas, Water and Rivers Commission, Statewide Policy No. 1' (1999); Environment Australia Best Practice Environmental Management in Mining Series 'Overview of best practice environmental management in mining' (2002); Botswana Department of Mines 'Reclamation/rehabilitation guidelines for sand and gravel mineral concessions operators' Version 1 October 2005; International Council on Mining and Metals 'Good practice guidance for mining and biodiversity' (2006) Edited by Linda Starke.

There are also guidelines that have been specifically developed to assist the regulatory authorities in their application of the regulatory regime governing sand mining in South Africa. A very useful guideline in this respect is the 'Mining and Environmental Impact Guide'[219] developed for the Gauteng Department of Agriculture, Conservation and Environment that provides a very comprehensive guide on mining in Gauteng for use by Environmental Officers in the employ of the department. Another guideline was developed for the Department of Water Affairs to assist officials in administering water use authorisations in the mining sector.[220]

3.5 Discussion on the practical implementation of the regulatory system

My point of departure, after introducing and discussing the three themes of mineral regulation, environmental regulation and land use planning regulation in the sections above, is the premise that all three themes apply equally to the activity of sand mining and that no one theme takes precedence over another. A sand miner would, before he or she commences mining, be required to satisfy the legislative requirements of all three themes and this would include obtaining all the necessary permits and authorisations. The principle here is that the granting of a particular authorisation, such as a mining permit, would be a necessary but insufficient requirement for a mining operation to commence. All applicable authorisations must be obtained. Such a scheme is not unique

[219] Gauteng Department of Agriculture, Conservation and Environment (note 20 supra). The guide runs to over 1000 pages.
[220] Zitholele Consulting 'Guideline document for water use authorisation in the mining sector' Report No. 6431/6282/1/M Revision 2 October 2004.

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to the mining sector. There are many examples where a host of authorisations would be required to undertake an activity. Take, for instance, a person who wishes to open a restaurant. A number of regulatory regimes would be applicable to such an activity. This would include, inter alia, laws pertaining to environmental health, waste management, fire and safety, land use rezoning, smoking and liquor licensing. All applicable laws would have to be complied with else the restaurant would not open its doors.

The question that needs to be put forward at this point of the discussion is whether or not the three themes are being applied equally to sand mining in practice and, furthermore, whether the regulators in each theme are monitoring compliance with their respective legislative frameworks and enforcing the legislation where non-compliances are detected. As an environmental regulator, my exposure to sand mining over the past decade has shown that the three themes are not being applied equally to sand mining and that the regulatory system is heavily skewed in favour of mineral regulation. Mineral regulation appears to take precedence over environmental and land use planning regulation, the result of which is that sand miners only adhere to the legislative requirements of mineral regulation while that of environmental and land use planning regulation are often ignored. This bias seems to stem from the fact that there are overlapping mandates with respect to sand mining. I have already described how sand mining constitutes a land use and has an environmental impact. These characteristics bring the activity into the realm of environmental and land use planning regulation. The mineral regulators, however, maintain that their legislation, ie the Mineral and Petroleum Resources Development Act, adequately caters for the environmental impacts of mining

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as well as the land use implications of the activity, hence, there is no need for environmental and land use planning regulation to find application in the mining sphere. A further ground for the bias can be found in fundamental differences in interpretation of the Constitution. While mineral regulators maintain that mining is an exclusive national competence that supersedes provincial and local competences, land use planning regulators insist on their Constitutionally-guaranteed right to exercise their municipal planning function. Whatever the reason, though, the proclivity towards mineral regulation is fuelled by the institutional attitude – some would say arrogance – of the Department of Mineral Resources which holds that mining is of such importance to the economy of South Africa that it cannot be put at the mercy of 'lessor' regulators and that the mandate of the Department must be guarded ruthlessly. This intransigence on the part of the Department of Mineral Resources has laid the foundation for a regulatory conflict that has pitted mineral regulation, on the one hand, against environmental and land use planning regulation, on the other. This conflict will be discussed in greater detail in Part Two below.

Apart from the regulatory conflict, my experience of sand mining regulation has highlighted several weaknesses in the system. The first such weakness is the failure of cooperative governance between the key roleplayers. That overlapping mandates with respect to sand mining exist is a reality that all the regulators must face and the imperative to govern cooperatively is not a luxury but a Constitutional obligation. While environmental regulators and land use planning regulators cooperated well together, particularly in the eThekwini region, the same could not be said of mineral regulators.

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The eThekwini Municipality and the provincial Department of Agriculture and Environmental Affairs would meet regularly to deal with complaints of illegal sand mining. The two entities would share information and conduct joint site inspections. The regional office of the Department of Mineral Resources would, in contrast, display reticence when engaged. A case in point was information-sharing. eThekwini and the Province had, on several occasions, requested the Department of Mineral Resources to supply a database of all the legal sand miners in the eThekwini area. This would have helped to pinpoint the illegal sand miners so that appropriate enforcement action could be taken. The Department of Mineral Resources consistently refused to accede to this request and, instead, asserted that such a request would only be considered if it was made in terms of the Promotion of Access to Information Act and after paying the prescribed fee. Furthermore, the Department would fail to attend joint site inspections when invited. This undermining of cooperative governance severely hampered efforts to tackle illegal sand mining in eThekwini.

Another fundamental weakness in the regulatory system was deficient compliance monitoring and enforcement on the part of the regulatory authorities. Being a mineral extractive industry, sand mining should be policed primarily by the Department of Mineral Resources, however, as environmental regulators in KwaZulu-Natal, it appeared that the Department was not taking adequate steps to deal with illegal sand miners nor were they conducting regular inspections of legal sand miners to check if they were complying with the conditions of their permits or their environmental management plans. This perception was backed up by the fact that members of the public were approaching

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the Department of Agriculture and Environmental Affairs to complain about the damage caused by sand miners after receiving an unsatisfactory response from the Department of Mineral Resources. When we investigated these complaints we found that, in many cases, sand miners were mining outside of the boundaries specified in their permits and were not rehabilitating mined areas properly. These are issues that the Department of Mineral Resources should have been monitoring very closely. When we engaged the Department on their compliance monitoring deficiencies we were told that, while they do conduct site inspections, they were short-staffed and, therefore, could not monitor all sites.

In an in-depth study of the environmental compliance monitoring capacity of the Department of Minerals and Energy (as it was then known) in the Eastern Cape, Diedre Watkins found that '[i]n 1996, 50% of all mines were inspected, indicating that a mine was inspected, on average once every two years. However, by 2007, the inspection rate dwindled to 24%, implying that each mine was inspected, on average, once every four years.'[221] She states further that 'with three of the four environmental officers having left the Department recently, the projected number of inspections to be conducted in 2008/9 financial year is 100, implying that only 14% of all mines will be inspected in 2008. If the current capacity problem is not addressed in the regional office, as is the current case, the inspection rate can drop to a mine being inspected for compliance once every seven years.'[222] Compliance monitoring in the mineral regulatory regime, clearly, faces

[221] Diedre Watkins 'An assessment of the compliance monitoring capacity of the Department of Minerals and Energy, Eastern Cape' (2008) Unpublished MBA dissertation, University of Rhodes, Grahamstown at 81.
[222] Ibid at 81-82.

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challenges. There is, however, some room for optimism. In a recent conversation with a fellow environmental regulator, Mr. Trafford Petterson of the Environmental Management Department of the eThekwini Municipality, I was informed that there has been a marked improvement in compliance monitoring on the part of the Department of Mineral Resources since 2008 and that the municipality is working closer with the Department to tackle illegal sand miners.

Environmental regulators have fared no better in enforcing the regulatory regime governing sand mining. Despite being aware that sand miners were undertaking listed activities during the course of mining, such as the construction of access roads, clearing of vegetation and excavating sand from a watercourse, the Department of Agriculture and Environmental Affairs did not take enforcement action against any of the miners. Similarly, the Department of Water Affairs were, to my knowledge, not enforcing the requirements of the National Water Act with respect to the altering of river banks and changing the flow of a watercourse. The Department of Agriculture and Environmental Affairs did, nevertheless, actively investigate complaints of illegal sand mining and, on at least one occasion, statements were taken by an Environmental Management Inspector in connection with a mine operating on the lower Illovo River although a criminal docket was never registered.

It appears that land use planning regulators are the only regulators that have seen a measure of success in enforcing the regulatory regime. At least two local authorities have succeeded in obtaining High Court interdicts against sand miners who have violated

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regulatory prescripts. eThekwini Municipality successfully halted a company, Golden Dawn Investments (Pty) Ltd, who had built a slipway into the sensitive Mdloti estuary in preparation for sand mining[223], while the City of Cape Town halted the company Maccsand (Pty) Ltd from mining sand dunes in the Rocklands area.[224] A third local authority, Swartland Municipality, also successfully obtained an interdict against a miner, Elsana Quarry (Pty) Ltd, for contravening land use planning legislation although the miner was not engaged in sand mining but quartzite quarrying.[225] The eThekwini Municipality was particularly active in tackling illegal sand mining. Mr. Trafford Petterson of the Environmental Management Department spearheaded an initiative that drew together a diverse range of authorities, including the Organised Crime Unit of the South African Police Service and the Asset Forfeiture Unit of the National Prosecuting Authority, in a sand mining task team that sought to investigate and bring to justice illegal sand miners in the eThekwini area.

From the preceding discussion it is apparent that the regulatory regime governing sand mining in South Africa is not operating effectively. It is being undermined by regulatory conflicts, cooperative governance failures, and deficient compliance monitoring and enforcement systems. As a result, it is not achieving its purpose of

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[223] *eThekwini Municipality v Golden Dawn Investments (Pty) Ltd and Ranjith Ramnarain*, Durban High Court Case No. 15605/07. The interdict was granted by Theron J in July 2008. See also Tania Broughton 'Municipality to fight sand mining' Independent Online (09 July 2008). Available at *http://www.iol.co.za/news/politics/municipality-to-fight-sand-mining-1.407512* [Accessed 24 August 2010]; Tania Broughton 'City wants estuary mining stopped' Independent Online (15 July 2008). Available at *http://www.iol.co.za/news/south-africa/city-wants-estuary-mining-stopped-1.408361* [Accessed 28 July 2010].

[224] *City of Cape Town v Maccsand* (note 256 infra). This case is discussed in detail in section 3.7.1.2 of this dissertation.

[225] *Swartland Municipality v Louw NO and others* (note 236 infra). This case is discussed in detail in section 3.7.1.1 of this dissertation.

controlling access to a finite resource and ensuring that the resource is sustainably utilised. Illegal sand mining continues unabated and the environmental scars of sand mining are clearly visible in places like the KwaXimba valley in KwaZulu-Natal. Of all its flaws, it is the regulatory conflict that is the Achilles heel. It is the resolution of this conflict that holds the key to the fully effective and robust regulation of sand mining in South Africa.

PART TWO REGULATORY CONFLCIT

The regulatory conflict that has pitted mineral regulation, on the one side, against environmental and land use planning regulation, on the other has been simmering for over a decade and has been characterised by strained relations between the regulators and political brinkmanship. An affidavit by Mr. Gerard Gerber, an employee of the Department of Environmental Affairs and Development Planning in the Western Cape, put up in the *Maccsand* case, highlights the antagonistic relationship between the provincial authority and the Department of Mineral Resources.[226] He states, for instance, that 'DME has over the years however failed to co-operate with DEADP and has in fact actively undermined the Province and encroached upon its functional and institutional integrity; *inter alia* by directing mining companies to ignore DEADP's instructions.'[227] He cites an example of a letter that the Department of Mineral Resources wrote to Izingwe Capital (Pty) Ltd, a mining applicant, in which the Department instructs the applicant to ignore the correspondence by the Department of Environmental Affairs and

[226] Affidavit by Gerhard Gerber in the matter between the *City of Cape Town and Maccsand (Pty) Ltd and others*, Western Cape High Court, Case No. 4217/2009 and 5932/2009.
[227] Ibid at paragraph 41.

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Development Planning wherein that Department informed Izingwe of the requirements of the National Environmental Management Act.[228] Mr. Gerber then goes on to say that the 'DME has consistently maintained an intransigent and hostile stance against attempts by DEADP to enforce compliance by mining companies with the provisions (sic) NEMA and LUPO.'[229]

In KwaZulu-Natal, relations between the eThekwini Municipality and the Department of Mineral Resources reached an all time low in December 2007 when the municipality was forced to seek an interdict to stop Golden Dawn Investments from mining in the Mdloti estuary.[230] The municipality expressed shock that the Department of Mineral Resources had granted a mining permit to mine in the estuary despite the strong objections raised by the municipality during the application process. This case seemed to vindicate the view that the Department of Mineral Resources does not take seriously the legislative frameworks that operate in the environmental and land use planning regimes and consider their own legislative framework to reign supreme.

There have been several attempts over the years to try and resolve this regulatory conflict in the context of cooperative governance. In KwaZulu-Natal the Department of Agriculture and Environmental Affairs and the eThekwini Municipality started a focussed sand mining forum with the Department of Mineral Resources in an attempt to foster better cooperation between the departments. In the Western Cape attempts were

[228] Ibid at paragraphs 42 and 43.
[229] Ibid at paragraph 45.
[230] Note 223 supra.

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also made by the provincial environmental department to engage with the Department of Mineral Resources on the issue of mining. As Gerber explains in his affidavit

> 'DEADP sought to address these difficulties through the Western Cape Mining Environmental Forum, an intergovernmental consulting forum established in terms of the Minerals Act. Since its inception, DEADP has always been a member of this Forum. In the spirit of cooperative governance, DEADP initiated the drafting of a process to improve co-ordination with DME, to align the processes in terms of the Minerals Act and the EIA Regulations and to improve the level and quality of environmental assessment in the mining industry. The result was a Western Cape Province Mining Screening Checklist (GG 2), which was to be used as part of a proposed integrated process. It took more than a year to agree on the final draft of the checklist. It was finally completed during early 2002.'[231]

> 'To further improve co-operative governance, DEADP also initiated the drafting of a Memorandum of Understanding ('MOU') (GG 3) between all the members of the Western Cape Mining Environmental Forum in early 2002. The MOU was based on the memorandum then in place between DME and the Department of Water Affairs and Forestry ('DWAF'). The MOU was finalised that same year.'[232]

He then goes on to state

> 'During the latter half of 2002, DME, together with the other members of the Western Cape Mining Environmental Forum, were following the agreed upon new integrated process, within the framework of the MOU. In terms of this process, applicants for mining rights submitted completed copies of the Mining Checklist to the Forum for review in terms of both the Minerals Act and ECA.'[233]

> 'However, after less than a year, DME unilaterally terminated compliance in terms of the agreed process. On 3 February 2003, the day before the Mining Environmental Forum meeting scheduled for 4 February 2003, DEADP received a facsimile from DME (GG 4) enclosing a copy of an email which had apparently been sent earlier, which stated that on instruction from the Director: Mine Environmental Management, the Mining Environmental Forum meeting of the following day was cancelled. The letter declared 'Until further notice we are reverting back to normal procedures and practices that preceded the MOU agreements and meetings''.[234]

> 'On 25 November 2003, officials of DEADP met with officials of DME in Pretoria in attempt to resolve the dispute. From the subsequent letter received from DME dated 9 January 2004, it is clear that the dispute remains unresolved.'[235]

[231] Op cit note 226 at paragraph 14.
[232] Ibid at paragraph 15.
[233] Ibid at paragraph 22.
[234] Ibid at paragraph 23.
[235] Ibid at paragraph 24.

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Given the failed attempts to resolve the conflict by cooperative governance it was inevitable that the dispute would end up in the Courts. However, before I discuss how the judiciary dealt with the conflict, it would be useful to take a closer look at the nature of the conflict.

3.6 The nature of the conflict

As I have already intimated, the conflict arises primarily from a fundamental difference in interpretation of the Constitution and the Mineral and Petroleum Resources Development Act and is further amplified by the obstinate stance taken by the Department of Mineral Resources with respect to mineral regulation. The Department of Mineral Resources claims exclusive jurisdiction over sand mining and it bases this stance on the following premises:

- Mining is an exclusive national competence in terms of the Constitution; and

- The Mineral and Petroleum Resources Development Act incorporates environmental and land use planning regulation.

The environmental authorities and municipalities, on the other hand, do not deny the fact that the Department of Mineral Resources is the primary functionary regulating mining but claim that:

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- The Constitution grants power to national and provincial authorities to regulate environmental matters and the Constitution grants all three spheres of government the power to regulate land use;

- Sand mining is an activity that has a significant environmental impact and also has implications for land use planning. Hence, it is subject to the environmental and land use planning legislative framework;

- Although the Mineral and Petroleum Resources Development Act can regulate the environmental aspects of mining to a certain extent, it cannot purport to regulate the land use aspects of mining; and

- The Mineral and Petroleum Resources Development Act explicitly states that it is subject to any relevant law. This appears to kill the Department of Mineral Resource's argument that this Act is the only Act that can regulate sand mining and provides support to the argument that a mining permit is a necessary but insufficient authorisation to commence sand mining and that a number of different authorisations from various authorities may need to be obtained before sand mining may commence.

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3.7 Resolution of the conflict by the judiciary

The conflict between mineral regulation and environmental and land use planning regulation was particularly marked in the Western Cape where the Land Use Planning Ordinance is used as a critical tool to regulate land use. Indeed, the Western Cape is the only province in South Africa where the entire provincial area is covered by a land use planning scheme. It comes as no surprise, then, that two landmark cases were instituted in the Western Cape High Court that dealt specifically with this conflict. Since the issues brought before the Courts cut to the very heart of the Department of Mineral Resource's fiercely guarded mandate and unwavering view that mineral regulation takes precedence over environmental and land use planning regulation, it is also not surprising that the cases, once dealt with by the High Court, were taken on review to the Supreme Court of Appeal.

In this section I will discuss the progression of these two cases through the Courts and how the judiciary resolved, to an extent, the conflict between mineral regulation and environmental and land use planning regulation.

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3.7.1 Western Cape High Court

3.7.1.1 The Swartland case

The *Swartland* case[236] typifies the regulatory conflict that exists between mineral regulation and land use planning regulation. Although not a sand mining case the issues it deals with are applicable to sand mining and, indeed, to any mining activity. An application was brought by the Swartland Municipality to interdict a company called Elsana Quarry (Pty) Ltd to prevent them mining granite on the farm Lange Kloof. The basis of the application was that the farm had not been rezoned from Agricultural I to Industrial III in accordance with the Land Use Planning Ordinance and the Scheme Regulations promulgated in terms thereof. This rezoning was necessary because the former zoning does not permit mining while the latter zoning does.

Elsana Quarry, the landowners of Lange Kloof farm and the Department of Mineral Resources opposed the application on the basis that the Mineral and Petroleum Resources Development Act and the Constitution had rendered the Land Use Planning Ordinance 'invalid or unenforceable'[237] with respect to mining and that 'control over mining activities was the exclusive preserve of National Government as represented by DME'.[238] Elsana Quarry had initially applied to the Swartland Municipality for rezoning but was subsequently advised by the Department of Mineral Resources to withdraw the application. In opposing Swartland Municipality's Court application, Elsana Quarry

[236] *Swartland Municipality v Louw NO & others* 2010 (5) SA 314 (WCC).
[237] Ibid at paragraph 1.
[238] Ibid at paragraph 8.

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contended that it is entitled to commence mining on the farm solely by virtue of the mining right granted to it by the Department of Mineral Resources.

The main point of dispute in this case was the interpretation of section 23(6) of the Mineral and Petroleum Resources Development Act which states that a mining right is subject to 'any relevant law'.[239] Swartland Municipality argued that the Land Use Planning Ordinance was 'relevant law' as contemplated in section 23(6) of the Mineral and Petroleum Resources Development Act and, hence, the mining right held by Elsana Quarry was subject to the zoning scheme regulations applicable to the site in question. Elsana Quarry and the Department of Mineral Resources, on the other hand, argued that the Land Use Planning Ordinance could not be regarded as 'relevant law' because the Ordinance was subordinate pre-constitutional legislation that was inconsistent with the Mineral and Petroleum Resources Development Act and the Constitution. They argued further that the Mineral and Petroleum Resources Development Act had impliedly repealed those provisions of the Land Use Planning Ordinance that purport 'to regulate and control the use of land for the purposes of mining and mineral exploitation'.[240]

Le Grange J, in his judgment, found that the Land Use Planning Ordinance is indeed relevant and binding law stating

> 'The legislature, in my view, at the time the MPRDA was enacted, must have been aware of the fact that provincial or local legislation regulating land planning and zoning may be in place and that these legislation may potentially have a bearing on the

[239] Section 23(6) of the Act sates: 'A mining right is subject to this Act, any relevant law, the terms and conditions stated in the right and the prescribed terms and conditions and is valid for the period specified in the right, which period may not exceed 30 years'.
[240] Op cit note 236 at paragraph 16.

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> activities permitted by mining rights approved in terms of the MPRDA. The MPRDA is silent on the issue of rezoning of land and the only proper interpretation of the provisions of section 23(6) and 25(2)(d) of the MPRDA is that the meaning *"any other relevant law"* includes legislation like LUPO. To view it any differently, as submitted by the Respondents, cannot be correct as it may undermine the proper functioning of municipalities who are under an obligation in terms of the Municipal Structures Act, to achieve the integrated, sustainable and equitable social and economic development of its area as a whole. LUPO is therefore relevant and binding law. A contravention of its provisions constitutes, in terms of section 39(2), a criminal offence and a local authority has therefore a statutory duty to ensure that its laws are complied with.'[241]

After finding that the Land Use Planning Ordinance must be considered when granting a mining right Le Grange J then went on to discuss how the Ordinance and the Mineral and Petroleum Resources Development Act can be reconciled constitutionally according to the constitutional powers allocated to the national and local spheres of government. He recognised that the 'object and focus of the MPRDA and LUPO are not the same'.[242] Turning first to the Land Use Planning Ordinance, he affirms the fact that 'LUPO provides a statutory framework which regulates land use, planning and matters incidental thereto'[243], is not 'inconsistent with the Constitution'[244] and can 'justifiably be placed within the legislative competency scope provided for in both Schedules 4 and 5 of the Constitution'.[245] Insofar as the Ordinance purporting to regulate mining he expressed his opinion thus

> 'LUPO and the scheme regulations do … not unlawfully intrude into an area of exclusive national legislative competence in purporting to control and regulate the use of land for mining purposes. LUPO is not directed at the control of mining. … LUPO and the scheme regulations do not attempt to regulate mining per se. There is no suggestion that a local authority would be involved in considering or granting applications for mining rights.'[246]

[241] Ibid at paragraph 20.
[242] Ibid at paragraph 40.
[243] Ibid at paragraph 33.
[244] Ibid.
[245] Ibid at paragraph 34.
[246] Ibid.

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Turning to the Mineral and Petroleum Resources Development Act and the extent to which it purports to render the Land Use Planning Ordinance invalid, he explains that the issuing of mineral rights in terms of the Mineral and Petroleum Resources Development Act is not connected to nor regulates rezoning.[247] He states that '[t]he MPRDA is silent on the issue of rezoning' and '[t]he MPRDA can therefore not be read as impliedly having repealed legislation with LUPO's character and aim'.[248]

The essence of Le Grange J's constitutional reconciliation of the Mineral and Petroleum Resources Development Act and the Land Use Planning Ordinance is that both statutes are constitutionally valid and focus on different things. Neither statute can intrude into the other's focus area. The Land Use Planning Ordinance cannot purport to regulate the issuing of mineral rights and the Mineral and Petroleum Resources Development Act cannot purport to regulate rezoning. Any interpretation that confers on the Minister of Mineral Resources the wide power to make decisions on rezoning at the same time as issuing a mineral right would 'stand in conflict with the spirit and purport of the Constitution'[249], 'will negate the municipal planning function conferred upon all Municipalities'[250], and 'may well trespass into the sphere of the exclusive provincial competence of provincial planning'.[251] If a rezoning decision by a local authority were to impact on a mining right holder's exercising of his or her right then, as Le Grange J explains, this is simply a 'consequence of land use planning provided for in LUPO and recognised in the MPRDA that a mining right is "subject to any relevant law" - and a

[247] Ibid at paragraph 38.
[248] Ibid.
[249] Ibid at paragraph 41.
[250] Ibid.
[251] Ibid.

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holder of a mining right must comply with "the relevant provisions of this Act, any other relevant law and the terms and conditions of the mining right."'[252]

Alexander Paterson, commenting on the case, was quite scathing in his opinion of the mining authorities who displayed 'disrespect for the constitutional status, institutions, powers and functions of the local sphere of government; an attempt to assume power over an area of competence not conferred on it in terms of the Constitution; an encroachment on the geographical, functional and institutional integrity of local government; and a failure to co-operate with local government in mutual trust and good faith.'[253] He further opined that the case plainly highlighted the lack of cooperative governance in South Africa's environmental sector which works to the detriment of private entities who are 'effectively innocent bystanders to the petty intergovernmental turf wars'[254] and lamented the fact that the Court did not address the issue of cooperative governance stating that the 'South African judiciary should avail itself of every opportunity to strongly reinforce the principles and objectives of cooperative governance.'[255]

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3.7.1.2 The Maccsand case

The *Maccsand* case[256] also typifies the conflict between mineral regulation and land use planning regulation and adds environmental regulation to the mix. An application was

[252] Ibid at paragraph 39.
[253] Alexander Paterson 'Seeking to undermine cooperative governance and land-use planning' (2010) 25 2 *Public Law* at 697.
[254] Ibid.
[255] Ibid.
[256] *City of Cape Town v Maccsand (Pty) Ltd & Others* 2010 (6) SA 63 (WC).

brought by the City of Cape Town to interdict a company called Maccsand (Pty) Ltd from mining sand on the Rocklands Dune (Erf 13625 Mitchell's Plain) and the Westridge Dune (Erven 1210, 9889 Mitchell's Plain and 1848 Skaapskraal). Like the *Swartland* case, the City of Cape Town based its application on the contention that the zoning of the properties in question do not permit mining and that Maccsand would, in addition to the mining right already granted to it by the Department of Mineral Resources, have to seek the relevant authorisations under the Land Use Planning Ordinance before commencing mining. In the case of the two properties in question 'either the zoning scheme would have to be amended to authorise mining on the relevant land or a departure would have to be granted from the existing zoning scheme to allow mining to take place on the land'.[257] The Department of Environmental Affairs and Development Planning, the provincial environmental authority, was joined in the proceedings on the basis that the proposed sand mining activities would also trigger Activity No. 12 and Activity No. 20 of Government Notice No. R386 of 21 April 2006 and, hence, Maccsand would also be required to seek environmental authorisation under section 24F of the National Environmental Management Act.

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Maccsand and the Department of Mineral Resources opposed the application on the basis that a decision under the Mineral and Petroleum Resources Development Act 'trumped all other considerations'[258] and that 'no other law or authority may "*veto*" the decision taken by the relevant Minister [of Mineral Resources] or delegate'.[259] The crux of their argument was that mining was an exclusive national competence and that a

[257] Ibid at page 6 paragraph 3.
[258] Ibid at page 7 paragraph 3.
[259] Ibid at page 7 paragraph 2.

mining right or mining permit issued in terms of the Mineral and Petroleum Resources Development Act exempts the holder from having to obtain an authorisation under the Land Use Planning Ordinance or the National Environmental Management Act. They considered it inconceivable that a municipality could essentially veto a mining activity by preventing a permit-holder from exercising his or her rights through a refusal to grant an authorisation under the Land Use Planning Ordinance.

The City of Cape Town, on the other hand, averred that the Land Use Planning Ordinance was a key mechanism for municipal planning and that '[i]f LUPO was over-ridden, it would make it extremely difficult for authorities such as applicant to fulfill their constitutional function with regard to municipal principal planning'.[260]

Dennis J, in his judgment, leaned heavily on the *City of Johannesburg v Gauteng Development Tribunal* judgment[261] when he concluded that '[t]he Constitution does not give national legislation the right to take away the planning function of municipalities'[262] and that the national sphere 'cannot abrogate to itself the power to exercise executive municipal powers nor assume the right to administer municipal affairs by way of legislation outside of the scope of the Constitution'.[263] The essence of Dennis J's conclusion was that, despite the fact that mining is an exclusive national competency, the Mineral and Petroleum Resources Development Act and the Land Use Planning Ordinance can operate at the same time and one does not override the other. This was

[260] Ibid at page 12 paragraph 4.
[261] Note 151 supra.
[262] Op cit note 256 at page 19 paragraph 2.
[263] Ibid at page 19 paragraph 1.

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similar to the conclusion reached by Le Grange J in the *Swartland* case. Using an example to illustrate the problem that would present if local zoning schemes did not find application in other areas of exclusive national competence, Dennis J stated

> 'An examination of Schedules 4 and 5 reveals that correctional services, including the construction of prisons, is considered as an exclusive national competence; that is, it clearly not a provincial nor a local competence. Could it then be suggested that the construction of a prison by the Department of Correctional Services could take place in circumstances where the municipality, in whose jurisdiction the prison is proposed to be constructed, would have no say at all about the location of the proposed prison? Such a conclusion would not simply limit but eradicate the municipality's powers of municipal planning, allowing prisons to be located in, for example, an area zoned residential, no matter the views of the duly elected local government.'[264]

Turning to the National Environmental Management Act Dennis J was required to consider an argument by the Department of Mineral Resources that the Mineral and Petroleum Resources Development Act incorporates environmental requirements in the mining permit application process. This was by virtue of sections 2(h), 5(4)(a), 23(1)(d) and 37 to 39 of the Act which cover the need to consider environmental principles when making decisions in terms of the Act and also compels applicants to submit environmental management plans as part of the application process. The environmental provisions in the Act, so the Department argued, essentially meant that the Mineral and Petroleum Resources Development Act 'incorporated NEMA' and, therefore, an applicant need not obtain further authorisation under the National Environmental Management Act for a mining activity. Dennis J dismissed this argument referring to sections 24(8) and 24L(4) of the National Environmental Management Act which make it quite clear that 'notwithstanding the processes and authorisations under other laws including the MPRDA … an environmental authorisation under NEMA must be obtained

[264] Ibid at page 21 paragraph 2.

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unless the competent authority, empowered to issue the NEMA authorisation, decides to regard the authorisation under another law as a NEMA authorisation because it meets all the requirements stipulated in section 24(4).'[265]

The judgments by Le Grange J and Davis J are significant in that they, for an interregnum, resolved the regulatory conflict that exists between mineral regulation, environmental regulation and land use planning regulation and dramatically altered the regulatory landscape in South Africa. The judgments confirm that mineral regulation no longer takes precedence over environmental and land use planning regulation. Mining is, despite overlapping mandates, subject to all three themes of regulation equally and the original constitutional power of local authorities to regulate the use of land in their areas of jurisdiction was affirmed. This had profound implications for the mining industry as mining right-holders could no longer simply rely on their mining right or permit to commence with their activities. Miners were now required to also obtain environmental authorisation under the National Environmental Management Act, if necessary, as well as ensure that the land on which the mining is to take place is properly zoned. Environmental authorities and municipalities now possessed, in a manner of speaking, a veto on mining in that if they refused to grant authorisation under their respective legislative frameworks then mining may not commence.

The two litigants, Elsana Quarry (Pty) Ltd and Maccsand (Pty) Ltd, were, naturally, displeased at having their treasured mineral rights curtailed and so hastily lodged appeals in the Supreme Court of Appeal. They were joined by the Department of

[265] Ibid at page 35 paragraph 2.

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Mineral Resources who were especially indignant at being stripped of their mandate to regulate mining – on an exclusive basis.

3.7.2 Supreme Court of Appeal

The two appeal cases - *Maccsand v City of Cape Town*[266] and *Louw NO v Swartland Municipality*[267] - dealt with the same issues and so both were heard simultaneously before the same bench although two separate judgments were handed down. The issues that the Supreme Court of Appeal was called on to resolve, and which I discuss below, can be distilled into the following two questions:

- Is the holder of a mining right or mining permit in terms of the Mineral and Resources Development Act also required to obtain land use planning authorisation in terms of the Land Use Planning Ordinance?; and

- Is the holder of a mining right or mining permit in terms of the Mineral and Resources Development Act also required to obtain an environmental authorisation to conduct activities listed in terms of the National Environmental Management Act

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[266] *Maccsand (Pty) Ltd v City of Cape Town & others* 2011 (6) SA 633 (SCA).
[267] *Louw NO v Swartland Municipality* 2011 ZASCA 142.

3.7.2.1 Is the holder of a mining right or mining permit in terms of the Mineral and Resources Development Act also required to obtain land use planning authorisation in terms of the Land Use Planning Ordinance?

The Department of Mineral Resources and the two mining permit-holders maintained their position that mining is an exclusive national competence, that the Mineral and Petroleum Resources Development Act regulates mining exhaustively, and that the Land Use Planning Ordinance, which is subordinate provincial legislation, cannot find application in determining whether or not mining may proceed on a particular parcel of land. The Department of Mineral Resources advanced four reasons that supported their contention that the Land Use Planning Ordinance does not find application in the mining context:

> 19. With regard to the correct interpretation of the MPRDA, as far as the LUPO is concerned, we make the following submissions:
>
> 19.1 Firstly, an interpretation of the MPRDA as legislation intended to regulate the subject-matter of mining exhaustively is consistent with the Constitution, in that it recognises the exclusive legislative competence of the national legislature in this functional area.
>
> 19.2 Secondly, the MPRDA already provides for the determination of mining-related land-use rights in respect of land and for the control over those use rights as well as over the utilisation of the land subject to a mining-related land-use right so that the utilisation thereof can be harmonized with the surrounding land uses.
>
> 19.3 Thirdly, the LUPO is not "relevant law" as contemplated in certain provisions, or in the context, of the MPRDA or the mining authorisations.
>
> 19.4 Fourthly, in any apparent conflict between the LUPO and the MPRDA a court must seek an interpretation which avoids that conflict, whilst allowing for the fullest and effective exercise of the respective powers and functions possible.[268]

[268] MM Oosthuizen SC and K Warner Heads of Argument for Department of Mineral Resources (Second Appellant) in *Maccsand (Pty) Ltd v City of Cape Town & others* (note 266 supra) at paragraphs 8 and 9.

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The Swartland Municipality and City of Cape Town argued, of course, that they have an original constitutional power to regulate land use and that the Department of Mineral Resources cannot possibly purport to make a land use planning decision when it grants a mining right or mining permit. The City of Cape Town's arguments rested on the following points:

> 13. The City's case is that:
>
> 13.1. The MPRDA does not purport to override the legislation which governs land use. It deals with who has the right to exploit minerals, but not whether that form of land use is permitted on the land in question. Rights granted under the MPRDA are subject to other applicable laws.
> 13.2. When the DME grants a mining right or permit, it does not make a land use planning decision, or confer land zoning or land use authority.
> 13.3. If the MPRDA did purport to override the laws which govern land use, or to determine land use, it would be inconsistent with the Constitution, which provides that municipal planning is a matter in respect of which local government has executive authority. [269]

In determining the matter, Plasket J first considered 'the constitutional position of municipalities and the powers and functions that are vested in them by the Constitution.'[270] Quoting Moseneke J in *City of Cape Town & another v Robertson & another*[271] he states that a 'municipality under the present constitutional dispensation "is not a mere creature of statute, otherwise moribund, save if imbued with power by provincial or national legislation" but an organ of state that "enjoys "original" and constitutionally entrenched powers, functions, rights and duties that may be qualified or constrained by law and only to the extent the Constitution permits".'[272] Referring to the

[269] Geoff Budlender SC and Elsa Van Huyssteen Heads of Argument for City of Cape Town (First Respondent) in *Maccsand (Pty) Ltd v City of Cape Town & others* (note 266 supra) at paragraph 6.
[270] Op cit note 266 at paragraph 22.
[271] *City of Cape Town & another v Robertson & another* 2005 (2) SA 323 (CC).
[272] Op cit note 266 at paragraph 22.

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Constitution he then states '[s]ection 152(2) empowers municipalities to legislate in order to administer effectively those matters which they may administer. One of the matters that is listed in Part B of Schedule 4 as a matter over which municipalities have executive authority and powers of administration is municipal planning.'[273] Turning to the meaning of the term 'municipal planning' he agreed[274] with the interpretations made by Nugent JA in *City of Johannesburg v Gauteng Development Tribunal*[275] and Jafta J in *City of Johannesburg Metropolitan Municipality v Gauteng Development Tribunal & others*[276].

Plasket J then dealt with the considerations that the Minister of Mineral Resources must take into account when making a decision on the issuing of a mining right or mining permit in terms of the Mineral and Petroleum Resources Development Act. Looking at sections 23 and 27 of the Act, which sets out such considerations, he found that 'that not one of the considerations that the Minister is required to take into account is concerned with municipal planning. She does not have to, and probably may not, take into account a municipality's integrated development plan or its scheme regulations. She will not consider and probably will not even have the information available to her as to the current use of land, much less the municipality's views on how the issue of a mining right or mining permit may impact on the inhabitants and on its future plans.'[277] He concludes, thus, that 'it cannot be said that the MPRDA provides a surrogate municipal planning function that displaces LUPO and it does not purport to do so. Its concern is mining, not municipal planning. That being so, LUPO continues to operate alongside the MPRDA.

[273] Ibid at paragraph 25.
[274] Ibid at paragraphs 27 and 28.
[275] Op cit note 148 at paragraph 41.
[276] Op cit note 151 at paragraph 57.
[277] Op cit note 266 at paragraph 33.

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Once a mining right or mining permit has been issued, the successful applicant will not be able to mine unless LUPO allows for that use of the land in question.'[278]

Plasket J also found that there is no duplication of administrative functions between mineral and land use planning regulators stating that 'the MPRDA and LUPO are directed at different ends'[279] and that 'for as long as the Constitution reserves the administration of municipal planning functions as an exclusive competence of local government, a successful applicant for a mining right or a mining permit will also have to comply with LUPO in the provinces in which it operates.'[280] He cites two cases – *Minister of Public Works & others v Kyalami Ridge Environmental Association & another (Mukhwevho Intervening)*[281] and *Wary Holdings (Pty) Ltd v Stalwo (Pty) Ltd & another*[282] - as demonstrating that 'dual authorisations by different administrators, serving different purposes, are not unknown, and not objectionable in principle – even if this results in one of the administrators having what amounts to a veto.'[283]

The appeal brought by Maccsand and the Minister of Mineral Resources insofar as it related to their contention that the Land Use Planning Ordinance is excluded from the realm of mining was, accordingly, dismissed. Plasket J similarly dismissed the appeal brought by the trustees of the Hugo Louw Trust, Elsana Quarry and the Minister of

[278] Ibid.
[279] Ibid at paragraph 34.
[280] Ibid.
[281] *Minister of Public Works & others v Kyalami Ridge Environmental Association & another (Mukhwevho Intervening)* 2001 (3) SA 1151 (CC).
[282] *Wary Holdings (Pty) Ltd v Stalwo (Pty) Ltd & another* 2009 (1) SA 337 (CC).
[283] Op cit note 266 at paragraph 34.

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Mineral Resources as he dealt with both appeals concurrently. Referring to his reasons as set out in paragraphs 10 to 35 in the *Maccsand*[284] judgment he concludes that

> '… the MPRDA does not concern itself with land use planning and the Minister, when she considers the grant of a mining permit, does not, and probably may not, take into account such matters as a municipality's integrated development plan or its scheme regulations. As a result, the MPRDA does not provide a surrogate municipal planning function in place of LUPO and does not purport to do so. Its concern is mining, not municipal planning.
>
> LUPO thus operates alongside the MPRDA with the result that once a person has been granted a mining right in terms of s 23 of the MPRDA he or she will not be able to commence mining operations in terms of that right unless LUPO allows for that use of the land in question.'[285]

3.7.2.2 Is the holder of a mining right or mining permit in terms of the Mineral and Resources Development Act also required to obtain an environmental authorisation to conduct activities listed in terms of the National Environmental Management Act?

This issue was argued, exclusively, in the *Maccsand* appeal because the sand mining activities that Maccsand wished to undertake included, according to the Department of Environmental Affairs and Development Planning, certain activities listed in terms of the National Environmental Management Act. These were Activity 12 and Activity 20 as listed in *GNR* 386. However, when the appeal was heard on 16 August 2011, the list of activities had changed. *GNR* 386 was repealed in its entirety on 02 August 2010 and a set of three new Listing Notices were promulgated. This event, in fact, happened after the High Court had heard the matter but 18 days before judgment was handed down. Maccsand argued, consequently, that the High Court should not have issued the interdict

[284] Note 266 supra.
[285] Op cit note 267 at paragraphs 11 and 12.

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requiring them to seek authorisation under the National Environmental Management Act.[286] The Minister of Environmental Affairs and Development Planning countered this argument by stating that 'pending litigation must be decided in accordance with the law in force at the time of the institution of the proceedings'[287] which, in this case, occurred well before the repeal of *GNR* 386.

The major argument, however, hinged on whether or not the National Environmental Management Act finds application in the realm of mining. The Minister of Mineral Resources argued that it should be excluded because the Mineral and Petroleum Resources Development Act manages the environmental aspects of mining comprehensively. Their main arguments were as follows:

> 69.1 Firstly, an analysis of various provisions of the MPRDA reveals that the legislature intended to prescribe a comprehensive system to manage and mitigate the environmental impacts of mining.
>
> 69.2 Secondly, the legislature did not intend that, within the context of the MPRDA, the provisions of the NEMA would also be of general application to mining operations and the activities related or directly incidental thereto.
>
> 69.3 Thirdly, the transitional arrangement contained in the NEMA Amendment[288] read with the MPRDA Amendment[289] confirms that the two environmental-management systems, the one under the NEMA and the other under the MPRDA, were intended to be two separate, non-overlapping and self-contained systems.[290]

The Minister of Environmental Affairs and Development Planning, in response, argued that

[286] Andrew Breitenbach SC and Ron Paschke Heads of Argument for Minister of Local Government, Environmental Affairs and Development Planning (Fourth Respondent) in *Maccsand (Pty) Ltd v City of Cape Town & others* (note 266 supra) at paragraph 83.1.
[287] Ibid at paragraph 98.1.
[288] Act 62 of 2008.
[289] Act 49 of 2008.
[290] Op cit note 268 at paragraph 69.

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89 Section 24(8)(a) of NEMA, which was inserted by section 2 of Act 62 of 2008 (i.e. after the enactment of the MPRDA) and commenced on 1 May 2009, says expressly that an authorisation obtained under any other law (such as the MPRDA) for an activity listed in terms of NEMA, does not absolve the person concerned from obtaining an environmental authorisation under NEMA, unless an authorisation has been granted in the manner contemplated in section 24L of NEMA. …

90 It follows that, unless section 24L applies, the obtaining of an authorisation under another law, like the MPRDA, for an activity listed in terms of section 24(2) of NEMA, does not release the person intending to commence the activity from the requirement of obtaining an environmental authorisation under NEMA.[291]

Environmental regulators eagerly awaited for the Supreme Court of Appeal to adjudicate on this particular issue as it promised to provide clarity on whether miners were subject to the requirements of the National Environmental Management Act and would bring much needed certainty to the regulatory landscape. Unfortunately, they were disappointed. Plasket J declined to make a ruling on this matter on the basis that the matter had become academic due to the repealing of *GNR* 386 on 02 August 2010. He states

> 'It is unnecessary to examine the legislative scheme of NEMA because on 2 August 2010 Government Notice R386 was repealed in its entirety. That meant that items 20 and 12 of the listings were no longer in operation and could not be contravened in the future. This rendered the prayers for the interdicts redundant and the declarators academic. While the matter had been argued over a number of days in April 2010, the judgment of the court below was handed down on 20 August 2010, with the court obviously not having been informed of the repeal. That being so, the interdicts in respect of items 20 and 12 of Government Notice R386 could not validly have been issued and the declarators were made in the erroneous belief that the listing notices were current. There was thus no reason for the declarators to have been made in the absence of a live, concrete dispute, and they served no purpose.'[292]

At the conclusion of Supreme Court of Appeal litigation, then, the regulatory landscape remains altered but the regulatory conflict between mineral, environmental and

[291] Op cit note 286 at paragraphs 89 and 90.
[292] Op cit note 266 at paragraph 37.

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land use planning regulation has only partly been resolved. Whilst the specific conflict between mineral and land use planning regulation has been resolved definitively, the conflict between mineral and environmental regulation remains unresolved. What, then, are the implications for mining in South Africa? As it currently stands, miners must, in addition to obtaining the requisite permissions under the mineral regulatory regime, also obtain the requisite permissions under the land use planning regime. That mining constitutes a land use has been confirmed and land use planning regulators have an equal say in determining whether or not mining is a suitable land use for a particular parcel of land.

The Supreme Court of Appeal rulings have, in fact, cemented the legislative sea-change brought about by the High Court. Up till now miners have ignored the land use planning regime, with the full sanction of the Department of Mineral Resources, on the grounds that mining is a strategic economic activity that cannot be interfered with by local authorities. The change of rules can be viewed in one of two ways. Either it is seen as severely restricting South Africa's economic growth by hampering mineral exploitation, or, it is seen as facilitating an ordered exploitation of South Africa's mineral resources while safeguarding South Africa's valuable land resources. I subscribe to the latter view and see it as providing an important check against unbridled mining that ignores the judicious use of land. Irrespective of the strategic importance of a particular mineral, there will be occasion where the judicious use of land would dictate that that mineral should not be exploited. For instance, if a valuable deposit of gold were to be discovered in District Six in Cape Town, the City of Cape Town would, no doubt, deem

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it prudent to deny an application to have the land rezoned to permit mining. And such a decision would not be taken arbitrarily but would be based on sound land use planning principles that take into account a range of social and economic factors that, once considered, may show that District Six should rather be used for residential and tourism purposes. Moreover, I believe it is a fallacy to suggest that the mining sector has been hamstrung by the new dispensation. In the land use planning regime there exist a number of appeal mechanisms that can be used by mineral right-holders who see their way blocked by land use regulators. Land use planning decisions must comply with the prescripts of Administrative Justice and, like any administrative decision, can be taken on judicial review. Indeed it is not inconceivable to think that mining can take place on a sensitive area such as Greenpoint Common in Cape Town if strategic economic considerations outweigh social factors. Such an eventuality would transpire, though, by the equal application of the mineral and land use planning regimes and not by the imposition of the mineral regime.

The status quo does, nevertheless, throw up a number of practical considerations that are going to make implementation of the new regime challenging. For instance, the land use planning regime in South Africa, unlike the mineral regime, is fragmented and lacks a comprehensive regime that applies consistently throughout the Republic. What we have is a series of old-order statutes that apply differentially throughout the provinces and a patchwork of zoning schemes that, in metropolitan areas such as Cape Town and Johannesburg, are well developed while in most rural areas are non-existent. Obtaining planning consent to undertake a mining activity, particularly where one has operations in

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various parts of the country, may yet prove to be a formidable task. Mineral deposits, moreover, do not conveniently follow cadastral boundaries. In fact, mineral deposits often straddle property, municipal and provincial boundaries. Where a mine must be established over a provincial border the miner may have to apply for planning consent under two completely separate planning regimes and could face the prospect of having only half the mine approved for mining. Perhaps the promulgation of the Spatial Planning and Land Use Management Bill, which is expected to introduce an integrated county-wide planning regime, would solve these potential pitfalls.

But the real tragedy that has arisen from the Supreme Court of Appeal ruling is that the specific conflict between mineral and environmental regulation remains unresolved. The Court missed a golden opportunity to bring clarity to this long-standing issue and would have gelled the environmental authorities into action against sand miners who were not complying with the EIA regulations. It is expected that the conflict will continue to simmer and the real winners will be the sand miners who will simply ignore the EIA regulations. What options now remain for environmental authorities who wish to apply the environmental regulatory regime to sand miners? Well, the only real tool at their disposal is the National Environmental Management Act Section 28 directive which can be issued against anyone who is causing significant damage to the environment. However, since mining is inherently an environmentally destructive process and, if it is a legal mine, would be authorised under mineral legislation, use of the section 28 directive may be limited. Environmental authorities could make another attempt to strengthen intergovernmental cooperation with the mineral regulators. Perhaps differences could be

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set aside and a joint strategy developed to tackle illegal and non-compliant sand miners. Both mineral and environmental regulators are fully aware that sand is a finite resource that must be extracted sustainably and, perhaps, all it needs is skilled negotiators to find common ground between the two sides and get both sides working towards the same goal. On a practical level, environmental authorities should continue to comment on sand mining Environmental Management Plans and try and influence the decision of mineral regulators on individual applications through the consultation process provided by law. Joint initiatives on a regional basis, such as the sand mining task team operating in eThekwini, should be encouraged and strengthened and resources should be pooled. If mineral regulators do not have the staff capacity to inspect mines then the environmental authorities should do the inspections and report back to the mineral regulators. On a final note, environmental authorities should make use of the criminal justice system to bring illegal sand miners to justice. The criminal justice system is open to all and it is a simple matter to open a criminal case at a police station. Indeed, Environmental Management Inspectors are fully trained to collect evidence and prepare case dockets for prosecution and, since illegal mining is more of an economic crime than an environmental crime, specialised bodies within the National Prosecuting Authority, such as the Assets Forfeiture Unit, would no doubt be very keen to deprive these miners of the proceeds of their crime.

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Chapter 4

Conclusion

The mining of natural sand from the environment is a potentially destructive process that leads to the long term depletion of the resource. Using basic plant such as a front-end loader, a sand miner can extract large volumes of sand from deposits found in rivers, valleys and in coastal dunes. Because sand deposits are often replenished by transport from upstream catchments a false perception is conveyed that sand is a renewable resource. However, since sand can take thousands of years to form from the weathering of rock it is essentially a non-renewable resource and its removal from the environment can lead to further erosion downstream as well as to a sand deficit along coastal areas where sandy beaches are a vital defence mechanism against wave action.

The regulation of sand mining in South Africa is necessary to restrict access to the resource and ensure that extraction rates are sustainable. Sand mining regulation is complex but may be conveniently distilled into three regulatory regimes viz. mineral regulation, environmental regulation and land use planning regulation. Each regime is made up of a legislative framework as well as regulators that apply the legislative framework to the activity. Mineral regulation is primarily concerned with the exploitation of sand, as an economic activity, through the process of mining. It is a national government competence that is applied by the Department of Mineral Resources using the Mineral and Petroleum Resources Development Act as a legislative framework.

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Under this framework a sand miner need only apply for a mining permit provided he or she restricts the size of the mine to an area of 1.5 hectares or less and submits an Environmental Management Plan for approval. Additionally, the miner must make a financial provision and must rehabilitate the affected area at the conclusion of the mining activity.

Environmental regulation is a cross-cutting regulatory regime that is concerned with the environmental impacts of sand mining. Although mineral regulators play a role in environmental regulation through the environmental provisions of the Mineral and Petroleum Resources Development Act, the primary roleplayers are the Department of Environmental Affairs, Department of Water Affairs and the nine Provincial Environmental Departments. These regulators use the provisions of the National Water Act and the National Environmental Management Act to control the environmental impacts of sand mining. Sand mining is not an activity listed under the National Environmental Management Act that requires an Environmental Impact Assessment and an application for an environmental authorisation. However, there are certain activities incidental to sand mining that do require an environmental authorisation and these include the construction of access roads and the removal of indigenous vegetation.

Land use planning regulation is a concurrent competence that is shared by national, provincial and local government. This regime is concerned with planning for and controlling how land is used in South Africa. It incorporates a range of planning mechanisms from large-scale planning at a regional level to micro-planning at an erf-by-

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erf level. The extent to which the three spheres of government may administer planning regimes has been a contentious issue but the Courts have, fortunately, provided clarity on this. Essentially the Courts have confirmed that the control of land use is executed by the local sphere of government through mechanisms such as Spatial Development Frameworks and zoning schemes. The legislative framework is, unfortunately, highly fragmented and is made up of a raft of pre-Constitutional statutes that apply differentially in the provinces as well as a patchwork of zoning schemes. South Africa lacks a comprehensive land use planning regime that applies consistently throughout the Republic. Nevertheless, certain zoning schemes at municipal level recognise mining as a form of land use and the regulatory regime demands that land be appropriately zoned to cater for its intended use. Thus, sand miners must take the necessary legal steps to ensure that the properties on which the mine is to be located is correctly zoned and the local authority must, in turn, determine whether or not mining would be a judicious use of the properties in question.

In this thesis I have advanced the premise that sand mining is subject to all three regulatory regimes equally and that no one regime takes precedence over another. In practice, though, the mineral regime has, until recently, taken precedence over the other two regimes. This has caused sand miners to comply only with the regulatory requirements of the mineral regime while ignoring environmental and land use planning requirements. This bias has precipitated a regulatory conflict that has pitted mineral regulators, on the one hand, against environmental and land use planning regulators, on the other. The root of this conflict can be traced to overlapping mandates between the

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regulators and to fundamental differences in the interpretation of the Constitution. Both environmental and land use planning regulators assert their right to apply their respective regulatory regimes to the activity of sand mining while mineral regulators aver that mining is, exclusively, a national competence and that the environmental and land use implications of mining are comprehensively catered for under the mineral regime. The conflict has been fuelled by an attitude of intransigence on the part of the mineral regulators and one is saddled with the sense that the mineral regulators view mining as of such economic importance to South Africa that it cannot possibly be put at the mercy of environmental and land use regulators who may veto and render mining rights useless. They are certainly ruthless in defence of their mandate.

The regulatory conflict has severely undermined cooperative governance efforts to tackle illegal and non-compliant sand miners. The conflict has, in fact, been characterised by political brinkmanship and not surprisingly, therefore, the conflict found its way to the judiciary where the passage of two landmark cases through the High Court and Supreme Court of Appeal has resulted in a partial resolution of the conflict. In *Swartland Municipality v Louw NO and others* and *City of Cape Town v Maccsand* the Western Cape High Court was required to consider the question of whether or not a person accorded mineral rights under the mineral regime is also required to comply with land use planning requirements, particularly the provisions of the Land Use Planning Ordinance. Additionally, in the *Maccsand* case, the Court was required to pronounce on whether or not the sand miner in question was obliged to comply with the requirements of the National Environmental Management Act, particularly by seeking environmental

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authorisations for certain listed activities triggered by the mining activity. In rulings that dramatically altered the legislative landscape, the Court held that mining is indeed subject to the requirements of the land use planning and environmental regimes and rejected the mineral regulator's contention that the mining regime, being a national competence, trumps the other two regimes. The bias had finally been broken. All three regimes coexist and no authority may intrude into another's jurisdiction nor abrogate to itself the power of another authority.

The Supreme Court of Appeal upheld the decisions of the Court a quo insofar as the application of land use planning requirements to mining was concerned. The jurisdictional sea-change brought about by the High Court had been cemented. Unfortunately, the Appeal Court overturned the decision of the High Court with respect to the application of the EIA regime to Maccsand's mining activity due to a most inconvenient circumstance of the repeal of the list of activities shortly before judgment was handed down, thereby rendering the Court's decision invalid. The Appeal Court, furthermore, missed a golden opportunity to make a declarator on the application of the EIA regime to mining on the basis that the Court should not make pronouncements on matters of academic interest.

The Court's decisions have far-reaching implications for the mining sector. Mineral rights are no longer sacrosanct and may be vetoed by local authorities. Some commentators would argue that subjecting mining to land use planning requirements is a recipe for chaos given the fragmented nature of the land use planning regime in South

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Africa and the economic importance of mining to the economy. What would happen if, to put it crudely, a *platteland dorpie* blocks the mining of a strategically important mineral by refusing to grant a rezoning application? I believe these fears to be unfounded, however. Land use planning decisions are made in accordance with prescripts set out in policy. Such decisions are not arbitrary but are made after careful consideration of a range of social, economic and environmental factors. The fact of the matter is that local authorities are imbued with a Constitutional right to administer land use planning regimes in their areas of jurisdiction and if, after applying their decision-making process, it transpires that a particular parcel of land should not be used for mining purposes then so be it. Mineral right-holders are entitled to make use of various appeal mechanisms provided for in law, including the option of judicial review, if they feel that a decision by a local authority falls foul of the prescripts of administrative justice.

The resolution of the conflict between mineral regulation and land use planning regulation should be hailed as a victory for sustainable development. By combining the rigorous assessment processes in both the mineral and land use planning regimes an important check against unbridled mining can be achieved leading to a more ordered exploitation of the country's mineral resources while, at the same time, protecting local needs. The missing ingredient, though, is environmental regulation. The regulatory system governing sand mining, in particular, can never be truly effective unless the conflict between mineral regulation and environmental regulation is resolved. While this conflict festers, environmental regulators will continue to be hamstrung in their efforts to contain the devastating environmental impacts of sand mining. Unless the environmental

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authorities are content to let the status quo endure it would be propitious for them to harness the momentum gained from this litigation and bring the matter to the Constitutional Court in order to confer finality on the dispute.

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Appendix I

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Appendix II

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C. ENVIRONMENTAL IMPACT ASSESSMENT:

The information provided in this section will enable officials to determine how serious the impact of the ~~prospecting~~/mining operation will be.

DESCRIBE THE ENVIRONMENT THAT WILL BE AFFECTED BY THE PROPOSED ~~PROSPECTING~~/MINING OPERATIONS UNDER THE FOLLOWING HEADINGS:

C.1 DESCRIPTION OF THE ENVIRONMENT LIKELY TO BE AFFECTED BY PROPOSED ~~PROSPECTING~~/MINING OPERATIONS: (REGULATION 52(2)(a))			
ENVIRONMENTAL ELEMENT/ IMPACTOR	VALUE	TICK	OFFICE USE
C 1.1 What does the landscape surrounding the proposed operation look like? (Open veldt/ valley/ flowing landscape/ steep slopes)			
Deep river valleys with pockets of deep alluvial river sands. Overgrazed thornveldt with some invasive plant species.			
C 1.2 Describe the type of soil found on the surface of the site			
Fine alluvial sands with small clay components	VALUE	TICK	OFFICE USE
C 1.3 How deep is the topsoil?	0 – 300mm	√	8
Very little or no topsoil exists since the mining of sand will take place within the river	300 – 600mm		4
	600mm +		2

C 1.4 What *plants, trees and grasses* grow naturally in the area around the site?

***Acacia karroo* (Sweet thorn), *Ficus* spp (Fig spp), *Ziziphus micronata* (Buffalo Thorn), *Euclea* spp (Guarri spp), *Spirostachys africana* (Tamboti)**

***Eragrostis* spp, *Aristida junciformis* (Nongoni grass)**

C 1.5 What *animals* naturally occur in the area?

No animals were identified during the site visit. It is expected that rodents, snakes and a number of birds inhabit the site.

	VALUE	TICK	OFFICE USE
C 1.6 Are there any *protected areas* (game parks/nature reserves, monuments, etc) close to the proposed operation?	Yes		4
	No	√	0

C 1.7 What mineral are you going to ~~prospect or~~ mine for?

Alluvial River Sand

C 1.8 Describe the type of equipment that will be used

Surface sand mining with a tractor loader backhoe (TLB) with tipper trucks to transport the sand off the site.

C.2 HOW WILL THE PROPOSED OPERATION IMPACT ON THE *NATURAL* ENVIRONMENT? (REGULATION 52(2)(b))

ENVIRONMENTAL ELEMENT/ IMPACTOR	VALUE	TICK	OFFICE USE
C 2.1 What will the ultimate depth of the proposed ~~prospecting/~~mining operations be?	0 – 5m	√	2
	6 – 10m		4
	10 – 25m		8
	25m +		10
C 2.2 How large will the *total* area of all excavations be?	**1.5 maximum**		ha
C 2.3 How large will each excavation be before it is filled up?	<10 X 10m		2
	<20 X 20m	√	4

	>20 X 20m		8
C 2.4 How many *prospecting* boreholes or trenches will there be?	N/A		

	VALUE	TICK	OFFICE USE
C 2.5 Will employees prepare food on the site and collect firewood?	Yes		4
	No	√	0
C 2.6 Will water be extracted from a river, stream, dam or pan for use by the proposed operation?	Yes		4
	No	√	2
C 2.7 If so, what is the name of this water body?			
C 2.8 If water will not be extracted from an open surface source, where will it be obtained?	**Drinking water will be brought to the site**		
	VALUE	TICK	OFFICE USE
C 2.9 How much water per day will the *mineral processing* operation require?	1000 – 10 000 Liters		2
No water used in processing	20 000 – 40 000 L		3
	40 000 – 60 000 L		5
	60 000 – 100 000L		8
	More		10
C 2.10 How far is the proposed operation from open water (dam, river, pan, lake)?	0 – 15m	√	8
	16 – 30m		6
	31 – 60m		4
	More than 60 metres		2
C 2.11 What is the estimate depth of the water table/ borehole?	**Less than 5 metres**		
C 2.12 How much water per day will the proposed operation utilize *for employees*?	**25**		**Liters**
C 2.13 What toilet facilities will be made available to workers?	None		8
	Pit latrine (longdrop)		4
	Chemical toilet	√	2
C 2.14 Would it be necessary to construct roads to access the proposed operations?	Yes		4
An access road enters the site from an easterly direction	No	√	0

	VALUE	TICK	OFFICE USE
C 2.15 How long will these access road(s) be (from a public road to the proposed operations)	0 – 0,5 km	√	4
	0,6 – 1,5 km		2
	1,6 – 3 km		4
C 2.16 Will trees be uprooted to construct these access road(s)?	Yes		4
	No	√	0
C 2.17 Will any foreign material, like crushed stone, limestone, or any material other than the naturally occurring topsoil be placed on the road surface?	Yes		4
	No	√	0
C.3 TIME FACTOR			
C 3.1 For what time period will ~~prospecting/~~mining operations be conducted on this particular site?	0 – 6 months		2
	6 – 12 months		4
	12 – 18 months		6
	18 – 24 months	√	8
	>24 months		10
C.4 HOW WILL THE PROPOSED OPERATION IMPACT ON THE *SOCIO-ECONOMIC ENVIRONMENT*? (REGULATION 52(2)(b))			
ELEMENT/ IMPACTOR	VALUE	TICK	OFFICE USE
C 4.1 How many people will be employed?	15		
C 4.2 How many men?	10		
C 4.3 How many women?	5		
C 4.4 Where will employees be obtained? (Own or employed from local communities?)	**Where skill levels allow, the employees will be sourced from the local community.**	√	2
Contractor's own employees.			4

C 4.5 How many hours per day will employees work?	Sunrise→ Sunset		4
	Less	√	2
	More		8
	VALUE	TICK	OFFICE USE
C 4.6 Will operations be conducted within 1 kilometer from a residential area	Yes	√	6
	No		1
C 4.7 How far will the proposed operation be from the nearest fence/windmill/house/dam/built structure?	0 – 50 metres		8
	51 – 100 metres		4
	150 or more metres	√	2
C.5 HOW WILL THE PROPOSED OPERATION IMPACT ON THE *CULTURAL HERITAGE* OF THE SURROUNDING ENVIRONMENT? REGULATION 52(2)(b)			
ELEMENT/ IMPACTOR	VALUE	TICK	OFFICE USE
C 5.1 Are there any graveyards or old houses or sites of historic significance within 1 kilometer of the area?	Yes		8
	No	√	0

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Appendix III

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DEPARTMENT OF MINERALS AND ENERGY

MINING PERMIT

[issued in terms of section 27 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)]

Official Office Stamp

Permit No. MP132/2007 Region KWAZULU-NATAL

Office reference KZN30/5/1/3/2/171MP (E/2006/12/11/001)

Permission is hereby granted under and subject to the provisions of the Mineral and Petroleum Resources Development Act, 2002 to [full name] [redacted]

Identity number in case of a natural person

In the case of a person other than a natural person please indicate:

Co X Cc Partnership/Joint venture Other *

* If other, specify

Registration number of Co. or Cc. 2 0 0 3 / 0 1 5 6 3 7 / 0 7

To mine for [name of mineral] SAND

on [full name of farm and subdivision, registration division and no.] A Portion of Remainder of Erf.751 of the Farm Tongaat

as indicated on the attached plan No. KZN30/5/1/3/2/171 MP signed by the Regional Manager on 1 4 1 1 2 0 0 7

Unless this permit is suspended, cancelled, abandoned or lapses, it shall be valid for a period (not more than two years) which shall extend from the date of issuing to 1 3 1 1 2 0 0 9 and may be renewed for three periods each which may not exceed one year.

This permit does not exempt the holder from the requirements of any provision of any other law or from any restrictive provisions or conditions contained in the title deed of the land concerned, nor does it encroach upon the rights of any person who may have an interest in the land concerned.

Signed at DURBAN this 14 day of November 2007

MINISTER OF MINERALS AND ENERGY