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**COMMENTARY ON THE DRAFT REGULATIONS TO THE GEOSCIENCE ACT 100  
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**Submitted by**

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**I. BACKGROUND OF COMMENTARY PARTIES: DEPARTMENT OF EARTH SCIENCE, DEPARTMENT OF GEOTECHNICAL ENGINEERING AND INNOVUS OF STELLENBOSCH UNIVERSITY**

**Department of Earth Science**

The geochemical laboratory plays a fundamental role for the all the environmental related research at the department of Earth Sciences. It offers various research streams that includes Metamorphism, Magmatism/Igneous and Crustal Evolution, Marine and Environmental Geochemistry, Sedimentology and Palaeontology, Economic Geology and Mineral Geochemistry, Structural Geology and Tectonics and Hydrogeology

**The Department of Geotechnical Engineering**

Geotechnical engineering is the branch of civil engineering concerned with the engineering behaviour of earth materials. The department provides education and offers mentorship to prepare students for careers as civil engineers. A SMART Civil Engineering Student from

Stellenbosch University learns to apply proven engineering sciences and techniques by making use of up to date technologies, designing sustainable solutions in collaboration with stakeholders, for the benefit of society.

The Civil Engineering Department conducts fundamental and applied research and presents Continuous Professional Development courses, to advance practices of Civil Engineering for the realisation, improvement and maintenance of sustainable physical infrastructure for society.

## **Innovus**

Innovus is a division of Stellenbosch University that is responsible for technology transfer, entrepreneurial support and development, and innovation. The Technology Transfer Office manages the University's innovation and intellectual property portfolio through seeking relevant intellectual protection for the universities intellectual property portfolio such as patenting, trademark, design and other forms of protection. The team is also responsible for the management of the portfolio and the commercialisation of innovation through licensing and the formation of spin-out companies.

The Technology Transfer Office derives its mandate from the No. 51 of 2008: Intellectual Property Rights from Publicly Financed Research and Development Act, 2008. (the "IPR Act") which sets as purpose the more effective utilisation of intellectual property emanating from publicly financed research and development. Compliance with the IPR Act is monitored through reporting to the IPR Act established National Intellectual Property Management Office ("NIPMO"). In addition, and complimentary to, the IPR Act, the university has its IP Policy which applies to all creations made at and by the University and its staff and students.

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## **2. INTRODUCTION AND SUMMARY**

The Geoscience Act 100 of 1993(the "Act") was promulgated to provide for the promotion of research and the extension of knowledge in the field of geoscience and to make provision for the establishment of a Council for Geoscience and for the management thereof by a Management Board.

While there are many aspects of concern in the draft regulations, matters of significance addressed in this commentary are focussed specifically on Chapters 2, 3 and 5.

We are of the opinion that the regulations were not issued under the powers delegated to the Minister as provided for in the Act, and thus unlawful.

Even if the Regulations were issued in accordance with the powers delegated under the Act, the Regulations has the effect to impose undue limitations and on the rights of ownership to the products of *geoscientific research*.

The obligation to disclose all geoscience data and information to the Council for the purpose of the Council to market a geoscientific research data for the benefit of the Council is nothing more than expropriation of intellectual property rights and have no element of custodianship as envisaged by the Act whatsoever.

The implementation of the draft Regulations will have serious negative consequences for both local and international research and will most definitely have an impact on research funding and foreign investment.

### 3. THE ACT

The objective of the Act is purely the “*promotion of research and the extension of knowledge in the field of geoscience*”. For the purpose of the Draft Regulations sections 5 and 6 are relevant. The Council, to achieve its objects (which must be consistent with the stated objective of the Act), is empowered under Section 5 (1)(c) and Section 6 of the Act .

Section 5. (1) of the Act provides that “*For the purpose of achieving its objects, the Council **may perform** the following functions: (a) Undertake geoscientific research; (b) compile and develop a comprehensive and integrated collection of knowledge of geology, geochemistry, geophysics, engineering geology, economic geology, geochronology, marine geology and geomagnetism; (c) **serve as the national custodian of all geoscientific information relating to the earth, the marine environment and geomagnetic space;**”*

The Act includes provisions of **support** of Council for research undertaken by research and other institutions. Section 5(2) provides specifically:

“*In order to promote relevant research and to support its objects the Council may- (a) make grants to universities, technikons, colleges and other educational and scientific institutions in aid of research by their staff or for the establishment of facilities for such research; (b) undertake joint research projects with departments of State, universities, technikons, colleges, other educational and scientific institutions and other persons; (c) **co-operate with educational authorities and scientific or technical societies for the promotion of the education and training of researchers, technical experts and other supporting personnel in schools, technikons, colleges and universities;** (d) grant study bursaries and loans to researchers, and make monetary contributions for research programmes in support of its own manpower requirements; and (e) co-operate with persons and institutions undertaking research in other countries by the exchange of geoscientific knowledge by means of international meetings and research projects.”*

Section 6 of the Act provides for the Powers of Council in respect of certain information:

“*6. (1) Notwithstanding the provisions of any other law, the Council shall have the right to inspect any information of the Department of Mineral and Energy Affairs which the Minister, or an officer of the said Department designated by the Minister, may approve on such conditions as the Minister or the said officer may determine. (2) The Council **may take into its custody** and use information contemplated in subsection (1) or a copy thereof, but any provision of any law whereby any restriction is imposed on the publication or display of such information, shall mutatis mutandis apply to any information or copy thereof which is in the custody of the Council in terms of this section. ”*

It is thus clear that the Act provides specifically for custodianship. The term “custody” has the ordinary meaning to take something into protective care or guardianship. Not to disown.

### 4. THE REGULATIONS

In accordance with the Draft Regulations as published, the Regulations are issued in terms of Section 25 (1)(e) of the Act, which states:

“(1) The Minister may, after consultation with the Board, make regulations as to—

(e) generally, any matter in respect of which the Minister considers it necessary or expedient to make regulations **in order to achieve the objectives of this Act**, and the generality of this provision shall not be limited by the preceding paragraphs.”

Chapter 2 or the regulations, places an obligation to disclose all geoscience data and information<sup>1</sup> to the Minister/Council within a prescribed period of 12 months.

The obligation of data lodgement is on both (2.1) GEOSCIENCE DATA AND INFORMATION IN RESPECT OF RECONNAISSANCE STUDIES AND PROSPECTING as well as (2.2.) ALL ONSHORE AND OFFSHORE GEOSCIENCE DATA AND INFORMATION, NOT RELATED TO RECONNAISSANCE AND PROSPECTING, (2.3) SUBMISSION OF GEOSCIENCE DATA AND INFORMATION ON INFRASTRUCTURE AND DEVELOPMENT and (2.4) ALL HISTORICAL / LEGACY DATA related to data in Regulations 2.1 to 2.3.

*2.1.1 All onshore and offshore prospecting geoscience data and information (for example technical reports, progress reports and prospecting reports), on reconnaissance and prospecting must be lodged to the Council for Geoscience in hard copy, in digital and/or physical format, as specified in Annexure A.*

*2.1.4 The holder of a permit / right must submit geoscience data every 12 months from the date of the granting of a permit /right or at the end of the tenure of the permit / right no longer than 30 days of the expiry of such period.*

*2.2.2 All foreign governments, public entities and private institutions or individuals intending to undertake geoscience research within the Republic must notify the Council for Geoscience in writing no longer than 60 days prior to the start of the intended research and must submit the results of their geoscience research to the Council for Geoscience within an agreed timeframe after the completion of the data collection and analyses phase.*

Chapter 3 provides that the Council for Geoscience offers prescribed services to public, private institutions and individuals at fees outlined in the Data and Information Pricing guidelines and catalogue obtainable from the council's offices and website.

Chapter 5 provides for invasive rights of Council to a) Onshore land and properties within its borders; b) Offshore regions within the exclusive economic zone of the republic and its territories; c) Subsurface; and d) The airspace to execute the mandate by council/minister in terms of the Regulations

Section 5.5 sets out the provision for PRESERVATION OF SECRECY IN RESPECT OF THE AFFAIRS OF COUNCIL and specifically provides that 5.5.1 Any person is prohibited from engaging in a conduct detrimental to the affairs of the council which includes but not limited to improper disclose of information without consent of the Council for Geoscience or its board.

Section 5.6 imposes SANCTIONS FOR IMPEDING THE FUNCTIONS OF THE COUNCIL FOR GEOSCIENCE 5.2.1 Any person who contravenes provisions of this regulation or failure to comply therewith, shall be guilty of an offence and liable on conviction by a court of law to a fine or imprisonment not exceeding two years, or to both a fine and such imprisonment.

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<sup>1</sup> 2.1.3 and 2.2.4 include non-exhaustive lists

## 5. ASSESSMENT AND COMMENTARY ON THE REGULATIONS

### a) Power of the Minister

The executive authority (the Minister), in making regulations in terms of the Act does so under the powers delegated to it under the Act. The Minister accordingly may not, under the Draft Regulations, act beyond the scope of the relevant empowering provisions contained in the Act. To do so would be *ultra vires* resulting in the relevant portions of the Draft Regulations being unenforceable.

In our view the Act, and in particular section 5 (1)(c), does not empower the Minister to impose limitations on ownership rights in intellectual property rights relating to “geoscience data” and “geoscience information” through the requirement that persons/entities must lodge same with the Council. Our argument is based on the following arguments:

- a. The interpretation that the Minister is empowered to impose these limitations is simply not supported by the Act. There is no provision in the Act which purports to regulate the conducting of geotechnical research or impose restrictions on how the results (i.e., geoscience data and information) derived from such research may be exploited. Accordingly, to interpret the custodial responsibilities of the Council under Section 5 (1)(c) as permitting it to direct how a person/entity involved in geoscientific research must dispose of the results of its research is to interpret it in a manner which is inconsistent with the Act.
- b. Section 5(1)(c) clearly provides for the custodial role of the Council pertaining to geotechnical information. The broader and clearly stated objective of the Council, from which Section 5 (1)(c) is apparently derived, is to “ ***undertake research*** in the field of geoscience”<sup>2</sup>. A plausible interpretation of Section 5(1)(c) of the Act is rather that the results of geoscientific research undertaken or commissioned by the Council must be lodged with the Council. This would be in keeping with its custodial role and its powers (bestowed by the Act) to undertake research.
- c. The clearly stated objective of the Act, i.e., that the Draft Regulations should be for the furtherance and promotion of research in the field of geoscience. It is difficult to reconcile a limitation on ownership rights with respect to research outputs of geoscientific research with its mandate to promote such research. This requirement will likely be a disincentive for geoscientific research. Why would a person/entity undertake research, at significant cost, if it is not assured exclusive rights to the results of such research? The requirement is accordingly irrational when measured against the objective of the Act.

### b) Impact On Research And Expropriation Of Rights

A limitation on the exercise of ownership rights imposed by a regulation issued in terms of a statute (such as the Geoscience Act) is thus not unlawful *per se*, provided that such limitation is not arbitrary. It will be arbitrary where the Act does not empower the Minister to impose such limitation(s) through the making of regulations.

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<sup>2</sup> Section 3 (b) of the Act

Chapter 2 of the Regulations requires the lodgement of (2.1) GEOSCIENCE DATA AND INFORMATION IN RESPECT OF RECONNAISSANCE STUDIES AND PROSPECTING as well as (2.2.) ALL ONSHORE AND OFFSHORE GEOSCIENCE DATA AND INFORMATION, NOT RELATED TO RECONNAISSANCE AND PROSPECTING, (2.3) SUBMISSION OF GEOSCIENCE DATA AND INFORMATION ON INFRASTRUCTURE AND DEVELOPMENT and (2.4) ALL HISTORICAL / LEGACY DATA related to data in Regulations 2.1 to 2.3.

The Regulations are not intended to be limiting and claims the lodgement of ALL GeoScience Data and Information to the Council for Geoscience (herein after the “CGS”).

These rights that are at the core of any research and academic work at Stellenbosch University and any other Research facility and has the direct consequence of relinquishing the rights to intellectual property (IP) that should be residing with the university and the respective researcher.

Although the term “lodgement” could have the meaning to deliver to a custodian, a complete reading of Chapter 2 together with Chapter 5 makes the intent of the Regulations very clear. The result of these Regulations will have expropriation as a consequence and will have a negative impact on future research as set out further below.

An obligation to lodge all geoscience data and information to the CGS will have severe impact on research funding. It is important to note that research contracts are dependent on the funds negotiated and made available to the research institutions like Stellenbosch University, from funding organisation (national and/or international research agencies) or industry partners. Funds are provided linked with a certain deliverable, formulated in the research proposals, and the funding organisation expects the researcher to meet or address those outcomes and contractual obligations and deliver the results. The Regulations include provisions for the CGS to enter into contractual arrangements between project sponsor and researcher as a third party. The CGS has neither provided funding nor contributed towards the research yet claims the IP and rights to further market results (Regulation 5). The unintended consequence of will result in drastically reduced research contracts (number and volume) as the contractual agreement between funder and researcher will be compromised.

- 1.1. Timeframes. Research is dynamic and may depend on results and findings of previous research. Notifications of studies within 60 days of the commencement of studies may not be reasonably practicable. On a more serious note, research is hardly ever completed as it may be ever evolving. The Bill, however, stipulates that data is supposed to be handed over in prescribed intervals. Research is an ongoing process, hardly ever with a defined start, certainly not an end. The disclosure of results, if not compiled as a scientific paper, may seriously compromise any further research progress. Uncertainties about Regulation 5 (disclosure of information) are central to this point.
  - 1.2. The CGS must be mindful that it may have serious capacity constraints for the possible influx of request to adequately guide, monitor and administer the processes set out in the Bill. This Bill, in no uncertain terms, acknowledges the lack of capacity / resources of the CGS and its failure to fulfil its mandate (see also point above).
  - 1.3. The lodging of all historical data within 18 months of the entry into operation of the regulations is not feasible. Many seasoned researchers have accumulated vast amount of data over decades, much of it unpublished or only in condensed form. The CGS must be mindful of the full extent of the possible implication on its capacity and resources. It may imply that work at research facilities would come to a standstill for some time – years - since collation of all this data is a mammoth task. We do not have the capacity/staff to do this.
2. Regulation 3 (dissemination of data and information) This is a most sensitive and worrying point as data generated in academic departments and by researchers is intellectual property specifically created with the aim to be disseminated and commercialised.

- 2.1. Many research agreements – between the project sponsor and the researcher, without input from the CGS – contain explicit requirements that results are not to be commercialised, or only with the consent of the project sponsor. This Bill would effectively contravene these agreements, again with major implications for future research projects.
  - 2.2. Regulation 3.1 remains ominously vague, nothing has been said about who will be having access, how data will be disseminated, who the right owners are and how ‘appropriate’ fees are determined and who receives those fees – the CGS has had no input in projects, neither funding the project, nor doing the work, nor intellectual input.
  - 2.3. Data requests can be made directly through the CGS (regulation 3.2). This implies that the academic department has effectively lost all rights and oversight over data that it has generated. It also raises the question as to liabilities – if data turned out to be incomplete, wrong, misleading – who will be held accountable, who is responsible.
3. Chapter 5 in the Regulations (disclosure of information).
    - 3.1. Regulation 5.5.1 – is a severe restriction on the freedom to publish. CGS consent is required before researchers can publish data (old and new). It is essential for universities to be able to publish their research. A restriction of this right, is neither practical nor ethical.

## GENERAL EDITORIAL AND INTERPRETATION NOTES:

1	2	3	4
Comment No.	Clause reference	Proposed change	Justification for change
1	Definition “Occupier” (c)	(c) a person who has an income in excess of the prescribed amount which is R5 000.00 <del>per month or per annum.</del>	If an income amount is specified, the period over which this income is accrued must be given.
2	Definition “Dolomitic land”	“ <b>Dolomitic land</b> ” means land, underlain by dolomite residuum or bedrock (or both). <del>The dolomitic land is located typically (a) at depths of no more than 60 m in areas where no de-watering has taken place and where the local authority has jurisdiction, is monitoring and has control over the groundwater levels in the area, or (b)–Alternatively, dolomitic land may occur at depths of no more than 100 m in areas where de- watering has taken place or where the local authority has no jurisdiction or control over the groundwater levels.</del>	The definition as given suggests that the typical depth at which dolomite land is “typically” located depends on the control exercised by the local authority. This is patently incorrect. Dolomite land is defined as land where dolomite bedrock or residuum occur at shallow enough depth to influence the risk of subsidence at the ground surface. This is 60m where the local authority is in full control of the level of the ground water table and 100m where the local authority has no control. At greater depths, the presence of dolomite has no effect on the risk of surface subsidence.  The amended definition is in line with the definition in SANS 1936-1.
3	Definition “Geo-environmental pollution”	“ <b>Geo- environmental pollution</b> ” means any degradation to the natural environment brought about by human-induced activities; such as mineral exploration /exploitation and other <del>such activities, in the course of the production of geoscientific and geological information.</del>	A definition should not contain terms that can have multiple meanings such as the term “other activities”. This could be taken to mean any activity at all. Furthermore, one would hope that the production of geoscientific and geological information would not cause pollution.  Alternatively, if you are referring to exploratory shafts or adits or to drillings sites, then the definition should be written in this way.
4	Definition “Geotechnical report”	“Geotechnical report” means geotechnical site investigation reports, inclusive of all geohazard -related investigations, prepared by a competent person. A geotechnical report provides information on <del>surface and subsurface</del> soil, rock, and groundwater conditions in respect of civil engineering structures and infrastructure, including mine surface infrastructure.	Geotechnical reports do not necessarily deal with surface water. Replace “water” with “groundwater” and then the words “surface and sub-surface” are redundant.
5	Definition of “Land”	“ <b>Land</b> ” means <del>all</del> areas of the Republic <del>(of South Africa – see the definition of “Republic” below)</del> and its territories, <del>including both onshore areas and properties, offshore, regions. This</del>	Improved grammar and meaning. Unnecessary to explain terms that are defined. Moved misplaced

1	2	3	4
Comment No.	Clause reference	Proposed change	Justification for change
		<del>definition of "land" includes any erf, agricultural holding or farm portion.</del>	sentence which currently appears after definition of "Land development" to its correct position.
6	Definition of "Land development"	" <b>Land development</b> " means any change of use of land or any deviation from the land use or uses permitted in terms of an applicable land use scheme providing for activities such as agriculture and /or the erection of buildings or structures, <del>etc., at ground level, below ground and above ground, etc within the Exclusive Economic Zone, subsurface and the airspace. This definition of "land" includes any erf, agricultural holding or farm portion.</del>	The reason for reference to "Exclusive Economic Zone" – an undefined term – is unclear. The definition as it stands excludes any development not in an Exclusive Economic Zone. Move misplaced final sentence to definition of "Land" above.
7	Definition of "State Authority"	" <b>State Authority</b> " denotes <u>any</u> organs of State, as defined in section 239 of the Constitution of the Republic and any <del>other</del> state -owned entities provided for in terms of the Public Finance Management Act 1 of 1999 (Act 1 of 1999).	An organ of state is not a state-owned entity so the word "other" is incorrectly used.
8	Definition of "Structure"	"Structure" means a building or construction of any kind, or any <del>man-made work piece of work artificially</del> built up or composed of parts joined together in some definite manner, <del>the use of which requires which occupies</del> a permanent location on the ground or attachment to an entity having a permanent location on the ground, with the exception of paved areas, walkways, <del>sports fields tennis courts</del> , and similar outdoor areas.	Clarity.
9	2.1	In addition, the points raised above.	What happens when this is confidential proprietary information of economic value to the owner of the information? Who is responsible for lodging such information? Does this requirement apply only to the holder of a permit or right (see 2.1.4) or to all owners of information?
10	2.2.2	Delete "no longer than" and replace with "no less than"	Clarify meaning. The clause as it stands means that the notification cannot be given <u>earlier</u> than 60 days before commencement whereas the intention appears to be that it cannot be given <u>later</u> than 60 days before.
11	2.2.4	Delete first sentence.	Repeat of information given in 2.2.3.
12	2.3.1 – 2.3.12	Delete or relocate these clauses under a separate heading. These clauses should appear under a separate heading "Development on dolomite land by State Authorities".	These clauses have nothing to do with the submission of geoscience data as given in the heading of Section 2 (Submission of Geoscience Data) and sub-section 2.3 (Submission of Geoscience Data on Infrastructure). These clauses should appear under a separate heading "Development on dolomite land by State Authorities".
13	2.3.1	Specify who is the "National Advisory Authority: Dolomite"	Is this an authority within the NDPW or CGS?
14	2.3.3 and 2.3. 1 (sic)	Correct clause numbering	Editorial
15	2.3.3	Is this a heading or a clause?	Editorial
16	2.3.4	delete "SANS 1936 1-4" and substitute "SANS 1936-4"	Only part 4 of SANS 1936 deals with risk management.
17	2.3.5	Is this a heading or a clause?	Editorial
18	2.3.6	All State authorities, that by virtue of their jurisdiction through the applicable legislation administered by such State Authority, <del>who undertake or approve development on where it is affected by</del> dolomite land, shall ensure that the National Advisory Authority: Dolomite has been consulted and a written opinion has been obtained on those matters.	Need to state what is "affected"
19	2.3.7(a)	Define "applicant". Go back to SANS 10400A and Regulation A19 to determine procedures for appointment of competent persons. Do not duplicate legislation.	If the "Applicant" is not a State Authority" but an independent developer, why should the state appoint a competent person?
20	2.3.9	Define NAAD.	Editorial. You have used the long title (National Advisory Authority: Dolomite), why swap to an abbreviation now. Either abbreviate from the start (first usage) or use the full title throughout.

1	2	3	4
Comment No.	Clause reference	Proposed change	Justification for change
21	2.3.9	"non-compliant with," non-compliant with what?	
22	2.3.9 (c)	end with a "." not a ",".	Editorial
23	2.3.10	Fix punctuation relating to section in brackets	Editorial
24	2.4	Delete this sub-section entirely	Sections 2.1 and 2.2 require the lodgement of all geoscience data, irrespective of age. Why have a special section for data over 15 years old.
25	2.5.2	Correct para numbering (currently given as 5.3.2) and formatting.	Editorial
26	3.1	See comments earlier in this document.	Does this mean the CGS will be able to sell confidential proprietary information paid for by owners of this information and gathered by way the requirements of Section 2.1 and 2.2? For example, CGS can obtain data on mineral prospecting from one mining house and sell it to another. Surely this is anti-competitive behaviour and a flagrant violation of intellectual property rights.
27	4.1.2	Make the developer responsible for lodging reports, not the geo-practitioner.	Reports prepared by geo-practitioners are the property of the person or entity who paid for the production of the report, not the property of the geo-practitioner. Often, such reports are covered by confidentiality agreements. Only the developer can make these reports available, not the geo-practitioner.
28	5.1.1	Delete "shall" and substitute "may, in accordance with its mandate,".	In its present form, the clause requires the CGS to undertake unspecified research and the public would be entitled to demand that they do so in terms of this clause. That is not the intention of this clause and the clauses which follow.
29	5.1.2	Change the start of this clause to "Where the execution of this mandate requires access to land or restricted airspace, the Council ...."	
30	5.1.3	Delete "ensure a conducive environment for the council to execute its mandate" and substitute "not do anything or cause anything to be one that will hinder the execution of the Council's mandate"	The owner has no obligation to provide any particular environment, conducive or not. For example, if the area to be investigated is inaccessible (e.g., a swamp or mountainous terrain) the owner has no obligation to construct access for the CGS. This is a possible interpretation of the clause as it stands.
31	5.2.5	"four committees"? What four committees?	Please refer back to regulation 5.2.4 to provide clarity on the four committees referred to in this section.
32	Annexure B, 1.2 (a)		Note that the latest NHBRC Home Building Manual does not recognise a "competent person (geo-professional)" and has deleted this definition by way of a modification to SANS 1936 (See Part 13 of the NHBRC Home Building Manual, Clause 13.2.2.1). The NHBRC has thus unilaterally removed the distinction between the functions of a geo-professional and a structural engineer thereby making it possible, in theory, for a geologist to undertake structural design.
33	Annexure B, 1.2	Delete "SANS 1936-4:2012" and substitute "SANS 1936-4".	The 2012 edition of the code has been re-written and will soon appear as a 2021 or 2022 edition. Keep the reference generic.
34	Annexure C	Include "Proximity and condition of all wet services"	Water ingress is the cause of 99% of all sinkholes on dolomite.
35	74(1) p43/48	This section is out of place and the numbering does not follow from the main section of the Regulations or the Annexures. Delete?!	Already dealt with in Section 6??
36	General	Please be consistent with capitalisation of words like "Council" and "Board".	Editorial

## **General comments**

1. Please note that the numbering of the paragraphs does not always follows e.g., par 2.5.1 is followed by 5.3.2; par 5.6 is followed by 5.2.1 and the font size differs. It's also advisable that the drafters choose a specific way of numbering and sticking to it.
2. The wording in some paragraphs “data and information should include but are not limited to” is just too wide and creates uncertainty.

## **CONCLUSION**

The Regulations do not appear to give effect to the ambit and aim of the Act. It may be that the intent of the Regulations is honourable, but the effect if these Regulations are implemented, would be dire for Research and has the direct consequence of expropriation.

-End