ADRIAN POLE
ENVIRONMENTAL LAW

13 Quarry Road • Assagay • KwaZulu Natal • SA
P O Box 671 • Hillcrest • 3650
Mobile: 082 340 8534
Email: adrian@adrianpole.co.za
Web: www.adrianpole.co.za

Your ref: Tosaco Block 1

My ref: AP/GC/TosacoEIA

To: **Environmental Impact Management Services**
8 Dalmeny Road
Pine Park
2194

By Email: tosacoer@eims.co.za

And to: **The Petroleum Agency South Africa (PASA)**
Tygerpoort Building
7 Mispel Street
Bellville 7530
Cape Town

By Email: mushwanas@petroleumagencysa.com
ngesip@petroleumagencysa.com

29 April 2021

Re. GREEN CONNECTION COMMENTS ON TOSACO BLOCK 1 - DRAFT SCOPING REPORT
PASA Reference: 12/3/362

A. INTRODUCTION

1. These comments are submitted on behalf of the Green Connection, a registered non-governmental organisation, that believes that economic growth and development, improvement of socio-economic status and conservation of natural resources can only take place within a commonly understood framework of sustainable development. Green Connection aims to provide practical support to both the government and non-governmental/civil society sectors, which are an integral part of sustainable development.

B. ROLE OF PASA IN NEMA EIA PROCESS

2. It is noted that the draft Scoping Report (DSR) indicates that Tosaco submitted an application for an exploration right (ER) to the Petroleum Agency South Africa (PASA) dated 5 May 2020, and that Tosaco subsequently submitted an application for environmental authorisation to

PASA on 17 March 2020.[1]

3. The DSR indicates further that a full Scoping and Environmental Impact Assessment (S&EIA) application is being undertaken to accompany the ER application for NEMA[2] EIA Listing Notice activity 18 (namely an activity including the operation of that activity that requires an exploration right as contemplated in s79 of the MPRDA).

4. In terms of the NEMA Environmental Impact Assessment (EIA) Regulations Listing Notice 2 of 2014,[3] the Minister responsible for Mineral Resources is identified as the competent authority where the listed activity is or is directly related to (among other things) exploration of a petroleum resource. Section 42B of NEMA provides that the Minister responsible for Mineral Resources may in writing delegate a function entrusted to him/her in terms of the Act to the Director-General of the Department of Minerals and Energy; or any officer in the department of Minerals and Energy. It is relevant to note that s42B of NEMA does not empower the Minister responsible for Mineral Resources to delegate a function to state-owned agencies or companies, such as PASA. It is also relevant to note that s42B of NEMA also does not include a power to subdelegate.[4]

5. On 18 June 2004, the then Minister of Minerals and Energy designated[5] PASA to perform the functions set out in Chapter 6 of the Minerals & Petroleum Resources Development Act (MPRDA).[6] It is relevant to note that the Minister was exercising powers conferred in terms of section 70 of the MPRDA. Section 71 of the MPRDA sets out the functions of PASA as the designated agency, which include (among other things) that the designated agency must:

> review and make recommendations to the Minister with regard to the acceptance of environmental reports and the conditions of the environmental authorisations and

[1] DSR, p1 and p20.
[2] National Environmental Management Act, 1998 as amended.
[3] GNR.984 of 4 December 2014 (as amended).
[4] Unlike s42(2)(d) of NEMA, which specifically provides that the Minister responsible for environmental matters may delegate a power or duty vested in him/her to the Director General, an MEC, the management authority of a protected area, or any organ of state (by agreement with that organ of state). In terms of s42(2)(a) this delegation must be in writing and may include the power to subdelegate.
[5] GN733 of 18 June 2004: *Designation of the Petroleum Agency South Africa (Proprietary) Limited for the purposes of the Petroleum Resources Development act, 2002 (Act No. 28 of 2002*). Section 70 of the MPRDA provides that the Minister Mineral Resources may designate an organ of state or a wholly owned and controlled agency or company belonging to the State to perform the functions referred to in Chapter 6 of the MPRDA (Petroleum Exploration and Production).
[6] Act 28 of 2002 (as amended).

amendments thereto. (emphasis added)[7]

6. It is pointed out that these functions do not extend to PASA accepting or processing NEMA EIA applications.

7. EIMS is requested to clearly state the role and functions being performed by PASA in this NEMA EIA process.

C. NO EXPLORATION DRILLING INCLUDED IN APPLICATION FOR AUTHORISATION

Background

8. It is noted that previous investigations and exploration activities have been undertaken within Block 1 in the past, firstly by PetroSA (who obtained an ER in 2008), and subsequently by Cairn South Africa (Pty) Ltd.[8] An environmental management programme (EMPR) and Addendum Report are indicated as having been completed and approved for the undertaking of seismic surveys and exploration drilling of 4 to 6 wells (it is assumed this relates to the PetroSA ER). The DSR indicates further that exploration drilling also received environmental authorisation under NEMA. It is unclear whether this relates to PetroSA, but a DSR[9] prepared on behalf of Cairn in 2014 indicates that PetroSA's proposed exploration drilling received environmental authorisation in terms of NEMA. It is not known whether Cairn obtained environmental authorisation.

9. It is noted further that Tosaco was granted a Technical Co-Operation Permit (TCP) under the MPRDA to conduct desktop geotechnical review and studies for Block 1, and that the DSR indicates that a number of oil and gas plays and features were identified. The inner graben rift basin play in particular is indicated as having provided sufficient evidence to warrant the interest to convert the TCP into an ER.[10] Gas potential is indicated as being greatest on the shelf, and oil potential greatest beyond the shelf.[11]

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[7] Section 71(i). It is also relevant to note that PASA is obliged to (among other things): promote onshore and offshore exploration for and production of petroleum (s71(a)); receive applications (made under the MPRDA) for reconnaissance permits, technical co-operation permits, exploration rights and production rights in the prescribed manner (s71(b)); and evaluate such applications and make recommendations to the Minister (s71(c)).
[8] DSR, p8.
[9] *Cairn – Proposed Exploration Well Drilling in Block 1 off the West Coast of South Africa – Draft Scoping Report*, July 2014).
[10] DSR, p8.
[11] DSR, p11.

10. Tosaco has designed a 3D seismic survey to specifically target the inner graben syn-rift basin to better define and outline these grabens in order to better understand the internal structure of possible reservoirs, traps, fault structures and possible sediment input points.[12]

11. The DSR states that Tosaco is proposing to undertake the reprocessing of approximately 5000km of existing seismic lines taken previously in Block 1, as well as approximately 750 km^2 of 3D seismic data previously undertaken. Additional 3D seismic surveys may be conducted over an area of approximately 1340 km^2 should the analysis of the existing data indicate that this will be beneficial, and would take about 4 months to complete.[13]

Exploration drilling excluded

12. It is noted that the proposed seismic survey programme comprises of 2D and 3D applications/acquisitions, and that 'the current programme does not include any provision for exploration drilling'.[14]

13. Section 1 of the MPRDA defines an 'exploration operation' as meaning:

> The re-processing of existing seismic data, acquisition and processing of new seismic data or any other related activity to define a trap to be tested by drilling, logging and testing, including extended well testing, of a well with the intention of locating a discovery.

Within the context of this definition, exploration necessarily includes the re-processing of existing seismic data, acquisition and processing of new seismic data or any other related activity to define a trap to be tested by drilling, logging and testing, including extended well testing, of a well with the intention of locating a discovery.

14. Given that Tosaco's 'current programme' does not include any provision for exploration drilling, it is unclear how or when Tosaco intends to define a trap to be tested by (among other things) drilling of a well with the intention of locating a discovery.

15. In addition, Tosaco's application under the MPRDA for an ER is not included in the EIA document set, nor is it available on PASA's website. A notice under section 10 of the MPRDA has been

[12] DSR, p16.
[13] DSR, p18.
[14] DSR, p16.

published on PASA's website,[15] but does not include any information regarding the scope of the ER applied for (and particularly whether the drilling of exploration wells has also been excluded from the ER application).

16. In light of the above, EIMS is requested to:

- Provide details of Tosaco's ER application under the MPRDA to PASA in the final DSR and/or draft environmental impact assessment report (EIAR); and

- State clearly in the final DSR and/or draft EIAR what Tosaco's intentions are with regard to the future drilling and testing of exploration and/or appraisal wells. If Tosaco does intend to drill and test any such wells, EIMS is further requested to indicate what the rationale is for not including drilling and testing of exploration and/or appraisal wells in this current EIA application, and what process Tosaco intends to follow in order to obtain NEMA environmental authorisation for same.

17. Assuming that Tosaco intends in the future to drill and test exploration wells with the intention of locating a discovery, the Green Connection submits that this exploration EIA should have sought authorisation for same. Applying for authorisation in a piecemeal fashion is potentially irregular[16] as it prevents the competent authority from assessing (and I&APs from commenting on) the full scope of potential impacts, including cumulative impacts, of the planned exploration operation (such as the potential environmental and socio-economic impacts of a catastrophic oil spill arising from a wellhead failure or blowout).

D. NEED AND DESIRABILITY

18. The NEMA EIA Regulations stipulate that a scoping report must include a motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location.[17]

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[15] https://www.petroleumagencysa.com/images/pdfs/section10_notices/2017/Northern_Cape_-_Tosaco_Energy_362.pdf

[16] Regulation 11(3) of the NEMA EIA Regulations stipulates as follows: '*If a proponent or applicant intends undertaking more than one activity as part of the same development within the area of jurisdiction of a competent authority, a single application must be submitted for such development and the assessment of impacts, including cumulative impacts, where applicable, and consideration of the application, undertaken in terms of these Regulations will include an assessment of all such activities forming part of the development*'.

[17] NEMA EIA Regulations, Appendix 3, section 2(1)(f).

19. With regard to need and desirability, a distinction is drawn between the 'general purpose and requirements' of the proposed activity and 'need and desirability'. The 2017 *Guideline on Need and Desirability* states as follows:

> In order to properly interpret the EIA Regulations' requirement to consider "need and desirability", it is necessary to turn to the principles contained in NEMA, which serve as a guide for the interpretation, administration and implementation of NEMA and the EIA Regulations. With regard to the issue of "need", it is important to note that this "need" is not the same as the "general purpose and requirements" of the activity. While the "general purpose and requirements" of the activity might to some extent relate to the specific requirements, intentions and reasons that the applicant has for proposing the specific activity, the "need" relates to the interests and needs of the broader public.
> …
> The consideration of "need and desirability" in EIA decision-making therefore requires the consideration of the strategic context of the development proposal along with the broader societal needs and the public interest. The government decision-makers, together with the environmental assessment practitioners and planners, are therefore accountable to the public and must serve their social, economic and ecological needs equitably. Ultimately development must not exceed ecological limits in order to secure ecological integrity, while the proposed actions of individuals must be measured against the short-term and long-term public interest in order to promote justifiable social and economic development – i.e. ensuring the simultaneous achievement of the triple bottom-line. Considering the merits of a specific application in terms of the need and desirability considerations, it must be decided which alternatives represent the "most practicable environmental option", which in terms of the definition in NEMA and the purpose of the EIA Regulations are that option that provides the most benefit and causes the least damage to the environment as a whole, at a cost acceptable to society, in the long-term as well as in the short-term.[18] (emphasis added)

20. Given that exploration operations are intended to define traps to be tested by drilling of a well with the intention of locating a discovery (of hydrocarbons below the seabed), and which in turn would likely lead to production operations should commercially exploitable hydrocarbon resources be discovered, the Green Connection is of the view that addressing the need and desirability within the context of ecologically sustainable development requires at the very least an initial assessment and consideration of the environmental health and safety consequences of the project, including an assessment of need and desirability, throughout its life cycle[19] (rather than ring-fencing the assessment of impacts and the consideration of need and desirability to the reprocessing of seismic data and acquisition of new seismic data). This will necessarily entail a consideration of (among other things):

- Climate change impacts associated with exploration, production and use of hydrocarbons discovered in Block 1, including: its impact on South Africa's ability to meet its international

[18] DEA (2017) *Guideline on Need and Desirability*, Department of Environmental Affairs, at p 10.
[19] Section 2(4)(e) of NEMA stipulates that responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service or activity exists throughout its life cycle.

responsibilities to address climate change; whether the proposed project promotes increased dependency on non-renewable hydrocarbon resources or reduces such resource dependency; and whether the exploration for an subsequent exploration of new hydrocarbon resources will impact positively or negatively on future generations of South Africans;

- Ecological and socio-economic impacts associated with a major oil spill (such as an uncontrolled wellhead blowout), including potential impacts on small-scale fishers and coastal communities that depend on the ocean for their livelihoods; and
- Critical Biodiversity Areas and Ecological and Biologically Significant Areas located within Block 1 and within the proposed seismic survey area where '*petroleum production is considered incompatible'*.[20]

21. It is noted that EIMS limits the consideration of need and desirability to the exploration for oil and gas (excluding drilling), indicates that the project '*will not, at this stage, involve the use of natural resources identified as part of the proposed exploration project'*, but also acknowledges that *'[t]he proposed project aims to identify oil and gas resources to be used in the energy production and/or processing or manufacturing of materials'*.[21]

22. It is also noted that in relation to the question of whether a risk-averse and cautious approach was applied to socio-economic impacts, the DSR indicates that '*[t]he level of risk is low as the project is not expected to have far reaching negative impacts on socio-economic conditions. Since the exploration activities will not include any drilling at this stage, a risk averse and cautious approach had been implemented to limit the impact on the surrounding environment'*.[22]

23. NEMA section 2(4)(a)(vii) stipulates that sustainable development requires the consideration of all relevant factors, including that a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions. It is submitted that ring-fencing the EIA application to exclude reasonably foreseeable future impacts (i.e. climate change impacts or catastrophic oil spill impacts that could arise from future hydrocarbon exploration drilling and production activities should commercially exploitable resources be discovered) is not a rational application of the 'risk-averse and cautious approach'

[20] DSR, p115. See also DSR Figure 76, also p115.
[21] DSR, p29. See in particular items 1.6, 1.7.1 and 17.2 of Table 7
[22] DSR, p34, item 2.6 and 2.6.3 of Table 7.

required by NEMA in relation to need and desirability. The approach taken in the DSR artificially removes potentially significant life cycle impacts from consideration in the EIA, notwithstanding that the proposed exploration is aimed at identifying oil and gas resources to be used in (among other things) energy production, and notwithstanding that that future exploration drilling and ultimately production activities are likely to follow.

E. NO GO OPTION

24. With regard to the 'no go alternative', the DSR states as follows:

> The no go alternative would imply that no exploration activities are undertaken. As a result, the opportunity to identify potential oil and gas resources within the Block 1 and proposed 3D survey area. This will negate the potential negative and positive impacts associated with the proposed exploration activities.[23] (wording as appears in DSR)

25. The Green Connection is of the view that the potential ecological and socio-economic risks associated with likely future exploration drilling and petroleum production activities (having regard to the global climate emergency and the potentially devastating impacts of a catastrophic oil spill) require a proper assessment and consideration of the "no go option". This assessment should necessarily include a consideration of alternative means to generate energy, and in particular renewable energy alternatives that do not pose a significant inter-generational ecological and socio-economic risk. It should also include a consideration of the benefits of the "no go option". These benefits include avoidance of the risk of significant ecological pollution should a catastrophic oil spill occur during future exploration and production operations (and would also avoid the associated risk to communities and small-scale fishers who depend on the ocean for their livelihoods), as well as the avoidance of additional greenhouse gas (GHG) impacts associated with extracting, processing and using any hydrocarbons discovered.

F. NO CLIMATE CHANGE ASSESSMENT

26. It is noted that the DSR does not address climate change impacts associated with the exploration for, production of and ultimately end-use of oil and gas in Block 1.

27. Regarding atmospheric emissions, the DSR states that no further impact assessment is required in the EIA phase.[24]

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[23] DSR, p38.
[24] DSR, p141.

28. Having regard to the global Climate Emergency[25] and South Africa's international commitment[26] to *'working with others to ensure temperature increases are kept well below 2°C above pre-industrial levels, which could include a further revision of the temperature goal to below 1.5°C in light of emerging science'*[27] by reducing greenhouse gas (GHG) emissions, Tosaco's proposed exploration for offshore oil and gas resources would, if additional commercially viable resources are found and developed to production phase, inevitably add to the South Africa's overall GHG emissions (South Africa's energy sector currently contributes an estimated 84% percent to the country's overall GHG emissions).[28]

29. As a reasonably foreseeable future impact that may become more significant when added to the existing and reasonably foreseeable GHG impacts arising from similar offshore oil and gas exploration and production activities in South Africa's exclusive economic zone, it is submitted that the cumulative impacts[29] of such GHG emissions need to be identified in the DSR, and the impact thereof assessed in the next phase of the EIA process.

30. Such an approach would be consistent with the NEMA environmental management principle set out in section 2(4)(e), which stipulates that responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service or activity exists throughout its life cycle.

31. The Green Connection submits further that the EIA should address the implications of climate change on oceans. The Intergovernmental Panel on Climate Change[30] has identified that coastal

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[25] https://www.unenvironment.org/explore-topics/climate-change/facts-about-climate-emergency

[26] As a party to the United Nations Framework Convention on Climate Change (UNFCC) that ratified the Kyoto Protocol and adopted the Paris Agreement.

[27] See for example South Africa's *Intended Nationally Determined Contribution (INDC)*, available online at: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/South%20Africa%20First/South%20Africa.pdf It is relevant to note that in 2021 South Africa published an update of its First NDC under the Paris Agreement for public comment, informed by the Talanoa Dialogue and IPCC special report on global warming of 1.5°C above pre-industrial levels. In terms of this update, South Africa commits to reducing the upper range of its 2025 and 2030 targets by 17% and 28% respectively. Among other things, the update indicates that South Africa will be finalising its Just Transition Plan, including pathways compatible with pursuing efforts to limit temperature increase to 1.5°C. South Africa's update of its first NDC is available online at: https://www.environment.gov.za/sites/default/files/reports/draftnationalydeterminedcontributions_2021updated.pdf

[28] https://www.climatelinks.org/resources/greenhouse-gas-emissions-factsheet-south-africa

[29] 'Cumulative impact' is defined in the NEMA EIA Regulations as follows: 'in relation to an activity, means the past, current and reasonably foreseeable future impact of an activity, considered together with the impact of activities associated with that activity, that in itself may not be significant, but may become significant when added to the existing and reasonably foreseeable impacts eventuating from similar or diverse activities.'

[30] https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap22_FINAL.pdf

systems will experience climate change-related impacts due to sea level rise and associated storm swells. In addition, there is medium agreement that the Benguela system will experience changes in upwelling intensity as a result of climate change. The Green Connection submits that the EIA should therefore include a study on the potential impacts that changes in ocean currents, increased severity of storms etc. could have on future exploration and production drilling activities.

G. SPECIALIST STUDIES (SEISMIC SURVEYS)

32. The DSR indicates that specialist studies are being undertaken to address the key impacts that require further investigation, namely a *Marine Ecological Impact Assessment* and a *Fisheries Impact Assessment*. The DSR indicates further that these studies '*involved the gathering of data relevant to identifying and assessing preliminary environmental impacts that may occur as a result of the proposed project*'.[31]

33. A *Marine Faunal Specialist Assessment* (prepared by Pisces Environmental Services (Pty) Limited) and a *Specialist Fisheries Assessment* (prepared by CapMarine) have already been conducted, and are attached to the DSR.

34. These specialist reports seem to have already concluded that the proposed seismic survey will not impact significantly on marine fauna and fisheries (including small-scale fisheries). For example:

- The *Marine Faunal Specialist Assessment* rates the significance of preliminary impacts identified as negligible, very low or low. It states further that if all environmental guidelines, and appropriate mitigation measures recommended are implemented, '*there is no reason why the proposed seismic survey should not proceed*'.[32] Various and detailed recommendations to mitigate potential impacts are also included in the *Marine Faunal Specialist Assessment*; and

- The *Specialist Fisheries Assessment* includes a section on small-scale fishers, and states that the small-scale fisheries rights cover the nearshore area (i.e. within close proximity of the shoreline) and are unlikely to extend more than 3 nautical miles from the coast.

[31] DSR, p5.
[32] Marine Faunal Specialist Report, p161 section 5.2.

The report states that '*There is no impact of temporary exclusion of fishing operations expected, as the proposed seismic acquisition area lies beyond the expected range of the linefish and rock lobster catch areas'*.[33]

35. Given that the specialist reports seem to have already concluded at this DSR stage that the proposed seismic survey will not impact significantly on marine fauna and fisheries the Green Connection submits that a credible peer review mechanism should be established as part of the EIA process for the specialist reports and impact assessments. The Green Connection submits further that the terms of reference for each specialist study and impact assessment should be clearly stated, together with the details of each specialist and suggested peer reviewers. The Green Connection believes that I&APs should be afforded a reasonable opportunity to comment on the terms of reference and proposed peer reviewers.

36. Notwithstanding the above, it is relevant to note that the DSR acknowledges that insufficient information is available in some instances and that gaps in knowledge exist. For example, the DSR and/or *Marine Ecological Impact Assessment* indicate that:

- A 2018 National Biodiversity Assessment for the marine environment points out that very few national IUCN Red List assessments have been conducted for marine invertebrate species to date owing to inadequate taxonomic knowledge, limited distribution data, a lack of systematic surveys and limited capacity to advance species red listing for these groups.[34]
- South Africa's seamounts and their associated benthic communities have not been extensively sampled by either geologists or biologists.[35]
- 33 species of whales and dolphins are known to occur in these waters, including the blue whale (critically endangered) and fin and sein whales (endangered). 17 species are listed as data deficient. '*The offshore areas have been particularly poorly studied with almost all available information from deeper waters (>200m) arising from historic whaling records prior to 1970. Current information on the distribution, population sizes and trend of most cetacean species occurring on the west coast of southern African is lacking. Information on smaller cetaceans in deeper waters is particularly poor and the precautionary principle must be used when considering possible encounters with cetaceans in this area*'. [36]

[33] Specialist Fisheries Assessment, p56, section 4.2.10.
[34] DSR, p58.
[35] DSR, p62.
[36] DSR, p72.

- While it is claimed that increasing numbers of southern right and humpback whales suggests that seismic surveys conducted over the past 17 years have not negatively influenced the distribution patterns of these two migratory species at least, *'[i]nformation on the population trends of resident species of baleen and toothed whales is unfortunately lacking, and the potential effects of seismic surveys on such populations remains unknown'*.[37]

37. It is also relevant to note that Block 1 and/or the proposed seismic survey area intersect Marine Protected Areas (MPAs), provide habitat or migratory routes to a number of critically endangered, endangered or threatened species, and also include Ecologically or Biologically Significant Areas (EBSAs), Critical Biodiversity Areas (CBAs), Ecological Support Areas (ESAs) and Vulnerable Marine Ecosystems (VMEs). For example, the DSR indicates that:

- Seamounts provide an important habitat for commercial deep water fish stocks such as Patagonian toothfish, which aggregate around these features either for spawning or feeding. '*Consequently, the fauna of seamounts is usually highly unique and may have a limited distribution restricted to a single geographic region, a seamount chain or even a single seamount location. As a result of conservative life histories… and sensitivity to changes in environmental conditions, such biological communities have been identified as Vulnerable Marine Ecosystems (VMEs). They are recognised as being particularly sensitive to anthropogenic disturbance (primarily deep-eater trawl fisheries and mining), and once damaged rare very slow to recover, or may never recover'*.[38]
- The fish most likely to be encountered on the shelf and in the offshore waters of Block 1 are large migratory pelagic species, such as tuna, billfish and sharks, '*many of which are considered threatened by the International Union for the Conservation of Nature (IUCN), primarily due to overfishing*'.[39]
- Leatherback turtles are the most likely turtle species to be encountered in the offshore waters of west South Africa. Leatherback turtles are listed as 'critically endangered' by the IUCN, and '*are in the highest categories in terms of need for conservation in CITES… and CMS'*. The 2017 South African lists of Threatened and Endangered Species (TOPS) similarly list the species as 'critically endangered', while the National Assessment listed them as

[37] *Marine Ecological Impact Assessment*, p159.
[38] DSR, p61.
[39] DSR, p67.

'endangered'. '*South Africa is thus committed to conserve these species at an international level'*.[40]

- A number of conservation areas and a MPA exist along the coastline of the Western Cape. The DSR states that '*the only conservation area in the vicinity of the project area in which restrictions apply is the McDougall's Bay rock lobster sanctuary near Port Nolloth… The Orange River Mouth wetland located at the northern corner of Block 1 provides and important habitat for large numbers of a great diversity of wetland birds and is listed as a Global Important Bird Area (IBA)…. The area was designated as a Ramsar site in June 1991, and processes are underway to declare a jointly-managed transboundary Ramsar reserve. Various Marine IBAs have also been proposed in South African and Namibian territorial waters, with a candidate trans-boundary marine IBA suggested off the Orange River mount…. Block 1 lies south of the Atlantic Southeast 21 marine IBA and overlaps with the candidate Orange River Mouth Wetland IBA*.'[41]
- Block 1 overlaps with the Orange Shelf Edge and Namaqua Fossil Forest MPA.[42] According to figure 74,[43] the proposed 3D seismic survey area overlaps part of the Namaqua Fossil Forest EBSA, recognised as globally important and declared as an EBSA in 2014.[44]
- A number of 'endangered' and 'vulnerable' ecosystems types are currently not well protected. '*Currently… most of the Southern Benguela Sandy Shelf Edge and Southeast Atlantic Upper- and Mid-Slope are poorly protected… whereas the Southeast Atlantic Lower Slope receives no protection at all*'.[45]
- '*As part of a regional Marine Spatial Management and Governance Programme (MARISMA 2014-2020) the Benguela Current Commission (BCC) and its member states have identified a number of EBSAs… with the intention of implementing improved conservation and protection measures within these sites'*. 3 trans-boundary EBSA's are shared with Namibia. '*The principal objective of these EBSAs is identification of features of higher ecological value that may require enhanced conservation and management measures. They currently have no legal status*'.[46]
- Regarding EBSA's, Figure 76 indicates critical biodiversity areas and an ESA in the proposed 3D seismic survey area. The DSR indicates that '*Future activities that may be prohibited in*

[40] DSR, p69.
[41] DSR, p111.
[42] DSR, p111.
[43] DSR p113.
[44] DSR, p111.
[45] DSR, P113.
[46] DSR, p114.

the conservation zone of these EBSAs includes mining construction and operations, although non-destructive or highly localised prospecting activities may be conducted in the impact management zone. Block 1 and the proposed 3D survey area overlaps with the southern portion of the Namaqua Fossil forest EBSA biodiversity conservation zone in which non-destructive exploration and destructive localised impacts such as exploration wells will be conditionally permitted, but petroleum production is considered incompatible. It must be noted however, however, that the EBSA Zone boundaries are subject to ongoing revision based on discussions with the National EBSA Working Group. These zones have been incorporated into the most recent iteration of the national Coastal and Marine Critical Biodiversity Area (CBA) Map… released on 26 February 2021 (Figure 76). This indicates that CBA1 and CBA2 regions extend south and offshore of the Namaqua Fossil Forest MPA and across the proposed 3D survey area. CBA 1 indicates irreplaceable or near-irreplaceable sites that are required to meet biodiversity targets with limited, if any, option to meet targets elsewhere, whereas CBA 2 indicates optimal sites that generally can be adjusted to meet targets in other areas. Ecological Support Areas (ESAs) represent EBSAs outside of MPAs and not already selected as CBAs. Sea-use within the CBAs and ESAs reflect those specified by the EBSA biodiversity conservation and management zones described above'.[47] (emphasis added)

38. The *Assumptions and Limitations* section of the DSR indicates that information gaps with regard to marine ecology include:

- Details of the benthic macrofaunal communities and potentially vulnerable species on deep water habitats; and
- Current information on the distribution, population sizes and trends of most pelagic seabird, turtle and cetacean species occurring in South African water and the project area in particular.[48]

39. With regard to fisheries, the same section of the DSR indicates that *'[t]he effect of seismic sound on the CPUE* [catch per unit effort] *of fish and invertebrates have been drawn from the findings of international studies. To date there have been no studies focused directly on the species found locally. Although the results from international studies are likely to be representative for local species, current gaps in knowledge on the topic lead to uncertainty when attempting to*

[47] DSR, p115.
[48] DSR p147.

accurately quantify the potential loss of catch for each type of fishery. Research into the effects of seismic sound on marine fauna is ongoing.'[49]

40. In light of the data and information gaps and lack of certainty acknowledged in the DSR, and having regard to the EBSAs, CBAs, ESAs and VMEs located in the proposed seismic survey area, the Green Connection submits that it is appropriate that a risk averse and cautious approach is properly applied that takes into account these limits in current knowledge about the consequences of decisions and actions relating to the proposed 3D seismic surveys. Lack of data and information gaps do not imply a lack of harm. The Green Connection submits that in order to protect the environment for the benefit of current and future generations, a proper application of a risk averse and cautious approach requires that where there are limits in current knowledge about the potential for and significance of impacts of 3D seismic surveys, it is better to err on the side of caution and prevent environmental harm which may become irreversible. Accordingly, the Green Connection is of the view that the proposed 3D seismic surveys should not proceed until sufficient information and knowledge is available.

41. The Green Connection reserves its rights to make further comment on these specialist reports during the comment period for the EIAR phase.

H. POLICY AND LEGISLATIVE CONTEXT

MPRDA

42. It is noted that the DSR makes reference to an EIA being required *'[a]s per Section 22(4)(a) and (b) of the MPRDA*'.

43. It is submitted that this reference is incorrect, as section 22 of the MPRDA deals within mining right applications (as opposed to petroleum exploration right applications).

44. Section 79 of the MPRDA deals with petroleum exploration right applications, and section 80(1)(c) stipulates that the Minister (DMRE) must grant an exploration right if the Minister has (among other things) issued an environmental authorisation (defined as having the meaning assigned to in in NEMA).

[49] DSR, p147.

NEMA

45. It is noted that the DSR makes reference to NEMA Listing Notice 2 activity 14 as requiring environmental authorisation for activities (including the operation of the activity) which require an exploration right as contemplated in s79 of the MPRDA.

46. It is submitted that this is incorrect.

47. NEMA Listing Notice 2 activity 18 requires environmental authorisation for activities (including the operation of the activity) which require an exploration right as contemplated in s79 of the MPRDA.

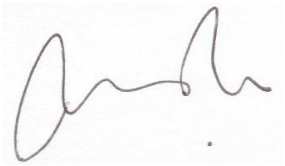
International Marine Conventions

48. No mention is made of the Benguela Current Convention in section 4.7.3 of the DSR.

I. PUBLIC PARTICIPATION

49. It is noted that while various notices were published in English and Afrikaans, the DSR and specialist reports appear to have only been made available to the public in English. Given that many community members, and small-scale fishers in particular, along the West Coast adjacent to Block 1 are Afrikaans-speaking, the Green Connection submits that an Afrikaans version of these documents should have been made available. It is pointed out that section 2(4)(f) of NEMA stipulates that the participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured.

Signed at Durban this 29th day of April 2021



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Adrian Leonard Pole