

TRANSMITTED BY EMAIL

To: **THE HONOURABLE MINISTER OF FORESTRY, FISHERIES AND THE ENVIRONMENT**
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ATT: Feroze Shaik
CC: **Deputy Director-General Oceans and Coasts**
Ms Judy Beaumont
Chief Director - Integrated Coastal Management
Adv Radia Razack
CC: **CEO: Eastern Cape Parks and Tourism Agency**
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Dear Minister Creecy,

REQUEST TO ISSUE COASTAL PROTECTION NOTICE RE. PROPOSED SEISMIC EXPLORATION OFF TRANSKEI COAST – BY IMPACT AFRICA LTD AND ROYAL DUTCH SHELL PLC (EXPLORATION RIGHT 12/3/252)

Introduction

1. We act for the Kei Mouth Ski Boat Club (“KMSBC”), the Border Deep Sea Angling Association (“BDSAA”) and Natural Justice (collectively “our clients”).
2. We have been instructed that Royal Dutch Shell PLC and / or its subsidiaries (“Shell”), as Operator of Exploration Right 12/3/252 (“Exploration Right”), held jointly by Shell and Impact Africa Limited and / or its subsidiaries (“Impact Africa”) intend to commence with 3D seismic surveys for the exploration of petroleum resources (“exploration activities”) in Licence Blocks 3327B, 3327D, 3427B, 3328 (A-C), 3228

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C and D, 3229 (A-C), 3129D, and 3130 (A-C) off the East Coast of South Africa (“the Transkei Exploration Area”).

3. The *National Environmental Management: Integrated Coastal Management Act 24 of 2008* (“NEM:ICMA”) defines the areas in which Shell proposes undertaking these exploration activities as “coastal public property” which vests in the citizens of the Republic and which the State must hold in trust on behalf of the citizens of the Republic.¹ The State, in its capacity as the public trustee of all coastal public property, must –
 - 3.1. ensure that coastal public property is used, managed, protected, conserved and enhanced in the interests of the whole community; and
 - 3.2. take whatever reasonable legislative and other measures it considers necessary to conserve and protect coastal public property for the benefit of present and future generations.²
4. Our clients are (along with many South Africans) deeply concerned about the adverse impacts associated with the proposed exploration and seismic activities in the Transkei Exploration Area and have instructed us to address this correspondence to you as a matter of urgency.

History of the matter

5. We understand that in early 2013, Impact Africa applied for the Exploration Right in terms of section 79 of the Mineral and Petroleum Resources Development Act, 2002 (“the MPRDA” and “the Application” respectively).
6. The Application was accompanied by *inter alia* an Environmental Management Programme (“EMPr”) which was submitted for approval in terms of (the then) section 39 of the MPRDA.
7. Pursuant to the submission of the EMPr, the Petroleum Agency of South Africa (“PASA”) accepted the Application on 1 March 2013, and PASA and/or the DMRE caused a basic Public Participation Process (“PPP”) to be conducted.
8. We are instructed to place on record that this is the **first time**, since registering as I&AP’s and participating in the PPP during 2013, that I&APs (including our clients KMSBC and BDSAA) received any form of notification of Impact Africa and/or Shell’s intentions to act in terms of the Exploration Right and undertake the exploration activities within the Transkei Exploration Area.
9. We understand that PASA and/or the erstwhile Minister of Minerals and Energy issued Impact Africa with the Exploration Right on 20 May 2014. We further understand that the Exploration Right has been renewed for the second time, effective for a period of two (2) years from August 2021, and that seismic surveying is imminently to commence.

Requirement for an environmental authorisation under NEMA

10. The Exploration Right was granted and the EMPr was approved under the MPRDA prior to 8 December 2014. At that time, exploring for oil and gas was not a “listed activity” for the purposes of the

¹ *National Environmental Management: Integrated Coastal Management Act 24 of 2008*, subsection (1) of section 11 (Ownership of coastal public property), as read with section 7 (Composition of coastal public property), and the definition of “coastal waters” in section 1 (Definitions).

² NEM:ICMA, section 12. (State public trustee of coastal public property).

Environmental Impact Assessment Regulations made under NEMA ("EIA Regulations") and consequently could be lawfully undertaken without an environmental authorisation under NEMA.

11. On 8 December 2014, the so-called "one environmental system" was introduced which made the DMRE responsible for issuing Environmental Authorisations under NEMA for all mineral, petroleum and related activities, such as exploration activities.
12. The introduction of the "one environmental system" required amendments to both the MPRDA and NEMA.
13. NEMA was amended by the National Environment Management Amendment Act, 62 of 2008, ("NEMAA"), which commenced on 9 May 2009, except that section 14(2) provided that any provision relating to prospecting, mining, exploration and production and related activities came into operation when the "one environmental system" came into effect.
14. In terms of the transitional provisions of NEMAA, an EMPr that was approved in terms of the MPRDA before the coming into effect of the "one environmental system" must be regarded as having been approved in terms of NEMA. The effect of this is that an EMPr approved under the MPRDA prior to 8 December 2014 must be regarded as an EMPr approved in terms of NEMA. It does not mean that such an EMPr has the status of an environmental authorisation under NEMA. (Indeed "environmental authorisation" is defined in both the MPRDA and NEMA in a manner that excludes EMPrs.)
15. It is now necessary to undertake a Full Scoping and Environmental Impact Assessment ("S&EIA") and obtain an environmental authorisation before commencing with seismic surveys, because –
 - 15.1. activities requiring an exploration right, "including the operation of that activity", are Listed Activities for the purposes of the EIA Regulations (Listing Notice 2, Listed Activity 18); and
 - 15.2. section 5A of the MPRDA (which commenced on 8 December 2014), states that "no person may explore for and produce any petroleum or commence with any work incidental thereto on any area without an environmental authorisation".
16. Furthermore, since the proposed exploration activities are "coastal activities" for the purposes of NEM:ICMA, the competent authority responsible for deciding whether or not to grant an environmental authorisation, must take into account the factors specified in section 63 (Environmental authorisations for coastal activities) of NEM:ICMA.

Failure to consider relevant considerations

17. Other legislation which regulates and protects the oceans would also need to be considered, such as the National Environmental Management: Protected Areas Act, 57 of 2003, ("NEM:PAA"); the Regulations in terms of section 97 of the National Environmental Management: Biodiversity Act, 10 of 2004, ("Marine TOPS Regulations"); and the Marine Spatial Planning Act, 16 of 2018, ("MSPA").
18. In this regard it is particularly relevant to note that in deciding to grant the Exploration Right, approve the EMPr, and grant the extensions to the Exploration Right, the decision-maker failed to consider -
 - 18.1. the duties of the State as public trustee of coastal public property, and under section 24 of the Constitution;
 - 18.2. a final environmental impact assessment report prepared in accordance with the EIA Regulations;

- 18.3. the factors referred to in section 63 of NEM:ICMA;
 - 18.4. the provisions of NEM: PAA, the Marine TOPS Regulations, and the MSPA; and
 - 18.5. relevant information that had emerged since the EMPr was prepared.
19. The EMPr which was prepared and submitted to PASA for the purposes of informing the decision about whether or not to grant the Exploration Right to Impact Africa under the MPRDA, did not include a single reference to the ICMA or NEM: PAA. The EMPr was wholly inadequate to enable the decision-maker to ensure that the State fulfils its duties as public trustee of coastal public property, and under Section 24 of the Constitution.

Adverse effects of proposed exploration activities

20. The proposed exploration activities will cause significant noise pollution, environmental degradation and harm to marine species, which constitute "adverse effects" for the purposes of NEM:ICMA.
21. As you know, the ocean is an acoustic world. Sound travels far more efficiently underwater than through the air. Whales, dolphins, and other marine species depend on sound to find mates, forage, avoid predators, navigate, and communicate—in short, for virtually every vital life function. Ocean species are acutely sensitive to acoustic disturbance, which can disrupt or prevent these vital activities.
22. Seismic surveys for oil and gas blast the water column with dozens of high-volume airguns to detect oil and gas reserves beneath the ocean floor, generating some of the loudest sounds that humans produce in the ocean that disrupt acoustic habitats across a wide geographic scale.³ Airguns are fired as often as every ten seconds, twenty-four hours a day, for months at a time. Each blast can produce effective sound levels in excess of 260 decibels that are powerful enough to be heard underwater for hundreds⁴ or even thousands⁵, of kilometres. The predominant seismic airgun frequencies overlap with the frequencies of greatest sensitivity for many fishes and invertebrates,⁶ while all of the airgun frequencies interfere with marine mammal communication.⁷ Noise from these blasts can disturb, injure, or even kill animals across the entire marine ecosystem, from the smallest zooplankton to the largest whales.⁸

³ Lorien Pichegru et al., *Avoidance of seismic survey activities by penguins*, 7 Sci Rep 16305 (2017), <http://www.nature.com/articles/s41598-017-16569-x> (last visited Nov 18, 2021).

⁴ B.J. Estabrook et al., *Widespread spatial and temporal extent of anthropogenic noise across the northeastern Gulf of Mexico shelf ecosystem*. *Endangered Species Research*, 30:267-382, (2016); M. Guerra et al., 2016. *High-resolution analysis of seismic air gun impulses and their reverberant field as contributors to an acoustic environment*. In A.M. Popper and A. Hawkins, eds. *The Effects of Noise on Aquatic Life II*, at 371-379. New York, N.Y.: Springer.

⁵ S.L. Nieuwirth et al. 2012. *Sounds from Airguns and fin whales recorded in the mid-Atlantic Ocean*. 1999-2009. *Journal of the Acoustical Society of America*, 131: 1102-1112.

⁶ Arthur N. Popper et al., *Acoustic detection and communication by decapod crustaceans*, 187 J Comp Physiol A 83–89 (2001), <https://link.springer.com/article/10.1007/s003590100184> (last visited Nov 18, 2021). Arthur N. Popper et al., *Anthropogenic Sound: Effects on the Behavior and Physiology of Fishes*, 37 Marine Technology Society Journal 35–40 (2003).

⁷ C. Gomez et al. *A systematic review on the behavioral responses of wild marine mammals to noise: The disparity between science and policy*. *Canadian Journal of Zoology* 94: 801-819, (2016); S. Cerchio et al. *Seismic surveys negatively affect humpback whale singing activity off Northern Angola*. *PLoS ONE* 9(3): e86464 (2014).

⁸ P. J. O. Miller et al., *Using at-sea experiments to study the effects of airguns on the foraging behavior of sperm whales in the Gulf of Mexico*, 56 Deep Sea Research Part I: Oceanographic Research Papers 1168–1181 (2009), <https://www.sciencedirect.com/science/article/pii/S0967063709000508> (last visited Nov 18, 2021); W. John Richardson, Gary W. Miller & Charles R. Greene, *Displacement of migrating bowhead whales by sounds from seismic surveys in shallow waters of the Beaufort Sea*, 106 The Journal of the Acoustical Society of America 2281–2281 (1999),

For example, airguns have even been shown to disrupt use of reefs by fish⁹ and kill off zooplankton, critical for sustaining the larger food web.¹⁰ They also have been shown to disrupt whale migrations and feeding.

23. The mitigation measures proposed in the EMP fail to address all of the harms described here. Moreover, it is not just the airguns that induce harm: the multibeam echosounders that would be used in the surveys also alter marine mammal behaviour, with research showing beaked and short-finned pilot whales changing their communication and behaviour in the presence of echosounders,¹¹ while melon-headed whales were driven to mass strandings and death by multibeam echosounders.¹²
24. The exploration activities are scheduled at a time when marine ecosystems are under greater stress than when the surveys were initially proposed in 2013. There is unprecedented seismic surveying activity in the territorial waters of South Africa, increasing the potential cumulative impacts. Climate change has raised ocean temperatures and increased ocean acidity, with a variety of knock-on effects, including changing forage opportunities.¹³ New Marine Protected Areas (“MPAs”), including the Amathole Offshore Marine Protected Area, were recently created in recognition of both the value of these coastlines and offshore areas, and the threat that anthropogenic activities pose to them.¹⁴ Endangered humpback dolphins, vulnerable Bryde’s whales, and beaked whales, right whales, and humpback whales traverse these waters along with thousands of other species, known and unknown. Penguins in the area, whose numbers have fallen by 70% in the last decade, have already been shown to change behaviour as a result of seismic surveys.¹⁵ Entire reef ecosystems will be put at risk as a result of these surveys. All of the harms resulting from the seismic surveys will therefore undermine the goals of the MPAs.

<https://asa.scitation.org/doi/10.1121/1.427801> (last visited Nov 18, 2021); Stacy L. DeRuiter et al., *First direct measurements of behavioural responses by Cuvier’s beaked whales to mid-frequency active sonar*, 9 *Biology Letters* 20130223 (2013), <https://royalsocietypublishing.org/doi/10.1098/rsbl.2013.0223> (last visited Nov 18, 2021).

⁹ Avery B. Paxton et al., *Seismic survey noise disrupted fish use of a temperate reef*, 78 *Marine Policy* 68–73 (2017), <https://linkinghub.elsevier.com/retrieve/pii/S0308597X16307382> (last visited Nov 18, 2021).

¹⁰ Robert D. McCauley et al., *Widely used marine seismic survey air gun operations negatively impact zooplankton*, 1 *Nat Ecol Evol* 1–8 (2017), <https://www.nature.com/articles/s41559-017-0195> (last visited Nov 18, 2021).

¹¹ Danielle Cholewiak et al., *Beaked whales demonstrate a marked acoustic response to the use of shipboard echosounders*, 4 *Royal Society Open Science* 170940, <https://royalsocietypublishing.org/doi/10.1098/rsos.170940> (last visited Nov 18, 2021); Nicola Quick et al., *Effects of a scientific echo sounder on the behavior of short-finned pilot whales* (*Globicephala macrorhynchus*), (2016) *Can. J. Fish. Aquat. Sci.* **74**, 716–726.

¹² Brandon Southall et al. *Final report of the Independent Scientific Review Panel investigating potential contributing factors to a 2008 mass stranding of melon-headed whales* (*Peponocephala electra*) in Antsohiy, Madagascar.

¹³ O. Hoegh-Guldberg et al., *The Ocean*. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, (2014) V.R. Barros et al. (eds.)). Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1655-1731.

¹⁴ Department of Environmental Affairs, *National Environmental Management: Protected Areas Act 2003 (Act No. 57 of 2003): Notice declaring the Amathole Offshore Marine Protected Area in terms of Section 22A*, (2019).

¹⁵ Lorien Pichegru et al., *Avoidance of seismic survey activities by penguins*, 7 *Sci Rep* 16305 (2017), <http://www.nature.com/articles/s41598-017-16569-x> (last visited Nov 18, 2021).

Request to issue coastal protection notice

25. As you know, the NEM:ICMA provides that the State is the trustee of the coastal zone;¹⁶ and grants your office considerable powers to stop activities that have had, are having, or may have an adverse effect on the coastal environment, and to remedy any such effects. These include the powers -
- 25.1. to issue directives under section 28 of the National Environmental Management Act 107 of 1998 (“NEMA”);¹⁷ and
 - 25.2. to issue coastal protection notices.¹⁸
26. It is evident that seismic surveying will result in an actual impact on the environment that impairs the marine environment and particularly marine fauna which inhabit (either permanently or on a migratory basis) that environment to an extent that is more than trivial or insignificant. Consequently, such surveying will have an adverse impact on the coastal environment as contemplated in sections 58 and 59 of NEM:ICMA.
27. Furthermore, undertaking the proposed seismic exploration at this time is *prima facie* unlawful, *inter alia* because –
- 27.1. Impact Africa and Shell do not have an environmental authorisation granted under section 28 of NEMA authorising them to undertake that activity;
 - 27.2. interested and affected parties were not afforded the opportunity to participate effectively in the decision-making processes that culminated in the granting and renewal of the Exploration Right, and the approval of the Environmental Management Programme;
 - 27.3. relevant considerations were not considered in the making of those decisions, including new information which has emerged since the submission of the EMPr in 2013, the requirements of section 63 of NEM:ICMA, and the provisions of NEM:PPA, the Marine TOPS Regulations, and the MSPA; and
 - 27.4. no consideration was given to whether or not authorising these exploration activities within coastal public property is consistent with section 24 of the Constitution and the State’s duties as a trustee of coastal public property.
28. We therefore request that you –
- 28.1. issue Impact Africa and Shell with a coastal protection notice in terms of section 59 of NEM:ICMA that prohibits them from commencing with seismic surveying unless and until they have obtained –

¹⁶ NEM:ICMA s.3(a). The “**coastal zone**” means the area comprising coastal public property, the coastal protection zone, coastal access land, coastal protected areas, the seashore and coastal waters, and includes any aspect of the environment on, in, under and above such area. “**Coastal waters**” in turn means the internal waters, territorial waters, exclusive economic zone and continental shelf of the Republic. The Transkei Exploration Area is included in the definition of “coastal waters”, and therefore forms part of the coastal zone for the purposes of section 58 and 59 of NEM:ICMA.

¹⁷ NEM:ICMA s.58 as read with NEMA s.28.

¹⁸ NEM:ICMA s.59

28.1.1. an environmental authorisation granted in accordance with section 28 of NEMA which authorises them to undertake the relevant listed activities (e.g. activity 18 on Listing Notice 2); and

28.1.2. the necessary authorisations under the Marine TOPS Regulations.

29. Unless we receive written confirmation by noon on **Friday 26 November 2021** that you have taken the measures referred to in paragraph 24, our instructions are to apply to court for appropriate relief on an urgent basis without any further notice to you.

30. All of our clients' rights are reserved.

Yours sincerely,



CULLINAN & ASSOCIATES INC.

Per: Ricky Stone