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10 September 2025

Dear Environmental Assessment Practitioners,

**COMMENTS ON THE DRAFT ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT REPORT FOR
TOTALENERGIES' DEEP WESTERN ORANGE BASIN (DWOB) SOUTH EXPLORATION DRILLING PROJECT**

1. These submissions are made by Natural Justice and the The Green Connection (**Organisations**) in response to the Draft Environmental Impact Assessment Report (**DESIAR**) published by SLR Consulting (South Africa) (Pty) Ltd on behalf of TotalEnergies EP South Africa S.A.S. (**TEEPSA**) and Joint Venture partners for the proposed exploration and appraisal well drilling in a southern portion of the Licence Block Deep Western Orange Basin¹ off the West Coast of South Africa (**Project**), released for public comment on 3 March 2025.
2. Natural Justice and the Green Connection are Interested and Affected Parties (I&AP) in relation to the proposed Project.
3. Natural Justice – Lawyers for Communities and the Environment is a non-profit organisation specializing in environmental and human rights law in Africa, with a focus on the pursuit of social and environmental justice for local and indigenous communities. Natural Justice provides legal empowerment, policy advocacy, and research support to communities impacted by extractive, infrastructure and conservation-related developments.

¹ We note that in respect of the northern project, the block is referred to as the Deep Water Orange Basin, and that the DESIAR refers to both the Deep Western Orange Basin and the Deep Water Orange Basin..

4. The Green Connection is a registered non-governmental organisation, that believes 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. It aims to provide practical support to both the government and non-governmental/civil society sectors, which are an integral part of sustainable development.
5. These comments are submitted in opposition to the proposed Project, in the interests of protecting the marine environment, the customary rights and livelihoods of coastal communities, and South Africa's climate and constitutional obligations. Natural Justice and the Green Connection make these submissions in both the public interest and in the interest of those communities and ecosystems that stand to be adversely affected by the proposed activities.
6. While this submission addresses the DESIAR as a whole, particular attention is given to the legal and procedural inadequacies, the insufficient treatment of oil spill modelling and climate-related impacts, and the failure to ensure meaningful public participation – especially for those most directly affected by the proposed operations
7. Our objections relate to the following:
 - 7.1. Oil Spill Modelling and response;
 - 7.2. Marine Impacts;
 - 7.3. Underwater Noise Models;
 - 7.4. Need and Desirability;
 - 7.5. Socio-Economic Impacts;
 - 7.6. No-go Alternative;
 - 7.7. Cumulative Impacts;
 - 7.8. Integrated Coastal Management; and
 - 7.9. Public Participation.
8. We note that appendices to Social Impact Assessment (SIA)² report were missing from the documents available online, as were the final Scoping Report documents. A request for access to these documents was made via email on 3 September, but a response was only received on 10 September, the due date of the comments, in respect of the SIA appendices. These comments are accordingly submitted in the absence of opportunity to consider the requested information.

A. OIL SPILL MODELLING

The DESIAR underestimated the risks of drilling in ultradeep waters

² DESIAR Appendix L.

9. The DWOB South exploratory drilling project is both exceptional and unprecedented. If granted, the EA will authorise drilling in waters up to 3,900 meters deep. If allowed to proceed, the proposed project may drill the deepest offshore well in the world.³
10. Drilling at this depth has never taken place before. This information is not disclosed in the DESIAR.
11. The deep sea below 2,500 meters is in perpetual darkness, has water temperatures consistently below 5°C, and pressures greater than 250 atm.
12. Because of these extreme conditions, drilling in ultra-deep waters is inherently risky. The DESIAR does not discuss the likelihood of encountering a high pressure, high temperature (HPHT) formation, such as the one involved in the Deepwater Horizon disaster.⁴ Since HPHT drilling projects are more dangerous and require more specialized equipment,⁵ the DESIAR should provide data to support why the operator is confident that an HPHT reservoir will not be encountered.

The DESIAR underestimates the risk of an unexpected blow-out

13. The DESIAR minimizes the risk of a well blow-out as “extremely low”, citing an IOGP report which “indicates that frequency of a blow-out from normal exploration wells is in the order of 1.4×10^{-4} per well drilled.”⁶ However, the DESIAR arbitrarily cites the blowout frequency for normal appraisal well operations (including gas wells) of “North Sea Standard.”⁷ This statistic does not include blow-out or well release rates for ultradeep projects, which are not “normal”. While the risks of drilling at the deepest depths in the Area of Interest are inherently unknown (because this drilling is unprecedented), the DESIAR should have included a discussion of spill likelihood based on data for exploratory projects at ultradeep depths.

The capping scenario of 20 days is unsupported and far from worst-case

14. The DESIAR indicates that the 20-day spill response duration is based on its plan to use a capping stack located at the Oil Spill Response Limited (OSRL) facility in Saldanha Bay to contain the spill in the event of a well blow-out.⁸ However, the capping stack in Saldanha Bay is only officially rated

³ Upon information and belief, the current deepest offshore well by water depth is the Ondjaba-1 well in Angola at approximately 3,600 meters deep. David Wethe & Andrea Jaramillo, *Drilling of world's deepest offshore oil and gas well planned for Colombia this year*, World Oil (Aug. 1, 2024), <https://www.worldoil.com/news/2024/8/1/drilling-of-world-s-deepest-offshore-oil-and-gas-well-planned-for-colombia-this-year/>; *Total to Drill Deepest Ever Offshore Well Using Maersk Rig*, Offshore Engineer (Jan. 14, 2020), <https://www.oedigital.com/news/474583-total-to-drill-deepest-ever-offshore-well-using-maersk-rig>.

⁴ United States National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, *Macondo: The Gulf Oil Disaster: Chief Counsel's Report* (2011); F. William M. Pinkston & Peter B. Flemings, *Overpressure at the Macondo Well and its impact on the Deepwater Horizon blowout*, 9, Sci. Rep., 7047 (2019).

⁵ U.S. Department of the Interior Bureau of Safety and Environmental Enforcement (BSEE), *Oil Spill Response Plan (OSRP) Equipment Capabilities Review*, BPA No. E14PB00072, Task 1: Worst Case Discharge Analysis (Volume I) (February 19, 2016).

⁶ DESIAR at p. 99.

⁷ IOGP, *Blowout Frequencies*, Report 434-02 (Sep. 2019) at p. 9.

⁸ Preliminary Oil Spill Contingency Plan at PDF p. 55 (Noting that “The conclusions of the calculations showed that the initial strategy should be comprised of the mobilisation and deployment of: ... A capping device, from the OSRL base in Saldanha Bay” and “As a primary response, TEEPSA will mobilise the Capping Stack currently stored in Saldanha Bay.”)

for pressures of 10,000 psi and waters up to 3,000 meters deep.⁹ 15,000 psi-rated capping stacks are considered standard for ultra-deepwater wells.¹⁰ For this reason, the DESIAR has failed to explain how the capping stack in Saldanha is sufficient to contain a well-blowout for the proposed project. Nor has it identified a capping stack that has been officially approved for use at up to 3,900 meter depths, much less explained how such a stack could be successfully transported and installed within 20 days. Given the DESIAR's reliance on capping stacks as a critical measure for containing a blow-out, the DESIAR should provide the specific data to support that a capping stack would be available for the highest possible pressures and the greatest possible depths that may be encountered within the Area of Interest.

15. It took 87 days for BP to cap the Deepwater Horizon well that occurred at a water depth of 1,600 meters, and 74 days to stop the spill at Montara at only 76 meters water depth.¹¹ While technology has improved, a reduction in capping time by more than four times is unsupported, and does not account for possible long delays from bad weather and rough seas that commonly occur in winter in the area.¹² These poor weather conditions could feasibly last for longer than 20 days. The DESIAR needs to explain why the 20-day capping scenario is realistic even under the worst-case conditions.
16. Further explanation is especially necessary, given that experts have found that capping typically takes *longer* than 20 days. Consultants to the US Bureau of Safety and Environmental Enforcement note that it can take more than 20 days to clear the site of a blowout and prepare the well for capping.¹³ Meng et al. (2019) noted that while capping stacks may take “days to weeks”, relief wells take “months”.¹⁴ In 2018 Paul Barnes, Atlantic and Arctic Canada director of the Canadian Association of Petroleum Producers' (CAPP), stated: “The view around the world is if there is a blowout, it will take at least 30 days in order to stop it.”¹⁵
17. The 20-day spill duration stands in stark contrast to oil spill modelling conducted for projects in other jurisdictions in shallower water and under *less risky* conditions. For example, Chevron's Anchor Project estimated a worst-case spill duration of 177 days to mobilize a rig, drill a relief well, and conduct kill operations for exploration wells located only at roughly 1,500 meter water depths in the Gulf of Mexico.¹⁶ For the Perdido oil platform in the Gulf of Mexico, located at 2,450 meters,

⁹ OSRL Introduces International Well Capping Equipment at New South African Facility, Offshore Technology, <https://www.offshore-technology.com/contractors/environmental/oil-spill-response/pressreleases/press-international-well-capping-equipment/>.

¹⁰ David Nickerson, *Technology scaled for any response*, World Oil 49-52 (Jan. 2021), available at: https://marinewellcontainment.com/wp-content/uploads/WO0121-Nickerson_SFOffshoreSafety_MarineWell.pdf.

¹¹ Wood Group Kenny, Subsea Capping Stack Technology Requirements (2016), <https://www.bsee.gov/sites/bsee.gov/files/tap-technical-assessment-program/756aa.pdf>

¹² See DESIAR at Appendix J, p. 35 (describing low visibility conditions associated with offshore ‘berg’ winds).

¹³ <https://www.bsee.gov/sites/bsee.gov/files/tap-technical-assessment-program/756aa.pdf> at 89. “However, a subsea capping stack cannot be deployed on the wellhead/BOP of the incident site until the site has been cleared and made safer. The time to prepare the well for a subsea capping stack is estimated to be 14 to 21 days.”

¹⁴ H. Meng et al. (2019) A capping technique for emergency response in offshore blowout accidents, Journal of Loss Prevention in the Process Industries, 62, 103925, <https://doi.org/10.1016/j.jlp.2019.103925>.

¹⁵ CBC News, Weeks to cap a subsea oil leak? It's industry standard, says official (Dec 06, 2018), Weeks to cap a subsea oil leak? It's industry standard, says official | CBC News.

¹⁶ 2020 Chevron Anchor Development Operations Coordination Document (DOCD) at PDF p. 16.

Shell estimated and modelled a worst-case spill duration of 100 days.¹⁷ The DESIA fails to explain or justify how a drilling project that is *deeper* and *further* away from available spill response equipment would be contained over *five times faster* than what has been predicted for other projects.

18. The 20-day spill duration also assumes that capping will be completely successful at containing a spill. However, this means that the DESIAR completely fails to consider a scenario where the capping system fails, which could occur if the wellhead is crooked (inclined so the capping stack cannot fit properly); the flow of oil from the well causes uplift and instability of the capping stack; and/or the wellhead is damaged due to debris, inhibiting the seal to the capping system.¹⁸ The DESIAR should present an estimate for the likelihood of capping stack failure, and outline an alternative spill response strategy in the event that capping fails.
19. Additionally, capping is only a “temporary solution,”¹⁹ designed to afford the operator the time to drill a relief well in order to fully address a blow-out. If a capping stack is applied without a relief well, the pressure buildup inside the wellbore can lead to seafloor fractures and additional spills, aggravating impacts.²⁰ DESIAR does not specify its relief well procedures. In fact, it does not acknowledge that a relief well would be necessary.
20. The short capping scenario also assumes that loss of well control will be immediately detected. However, there is no discussion of a contingency for the failure in the surface-controlled system, such as severed umbilical connection, or fire/explosion on the rig, which could lead to a much longer (and thus larger volume of spilled oil).

The DWOB South oil spill model failed to model worst-case spill locations

21. The DESIA modelled only two spill locations; one at 1,958 meters deep and the other at 3,108 meters deep.²¹ The DESIAR did not explain why it chose these two locations beyond broadly stating that they “were selected to represent the depth range of the Area of Interest, and based on their proximity to the coast and sensitivities.”²² However, these locations are not representative of either the shallowest or deepest possible depths or closest possible locations to shore or sensitive features, and therefore do not reflect worst case spill scenarios.
22. While the DESIAR presents conflicting ranges for water depths across the Area of Interest,²³ all ranges provide 2,000 m as the shallowest depth. However, one of the modelled locations was at a shallower depth (1,958 meters), with no explanation for the discrepancy. The other modelled location is at a depth of 3,108 meters, which is significantly shallower than the maximum depth of 3,900 meters provided for the Area of Interest. The DESIAR should have modelled risk of a release

¹⁷ 2021 Shell Perdido Development Operations Coordination Document (DOCD) at p. 21.

¹⁸ IOGP, *Subsea Capping Stack Design and Operability Assessment*, Report 595 (Feb. 2020) at p. 19.

¹⁹ *Capping*, OSRL, <https://visual360.no/osrl/concepts/capping/>.

²⁰ Elnoamany et al., *Blowout-Capping-Fracturing-Relief Well: A Full Cycle Workflow*, 29 SPE J. 780, available at: <https://onepetro.org/SJ/article-abstract/29/02/780/535712/Blowout-Capping-Fracturing-Relief-Well-A-Full?redirectedFrom=fulltext>.

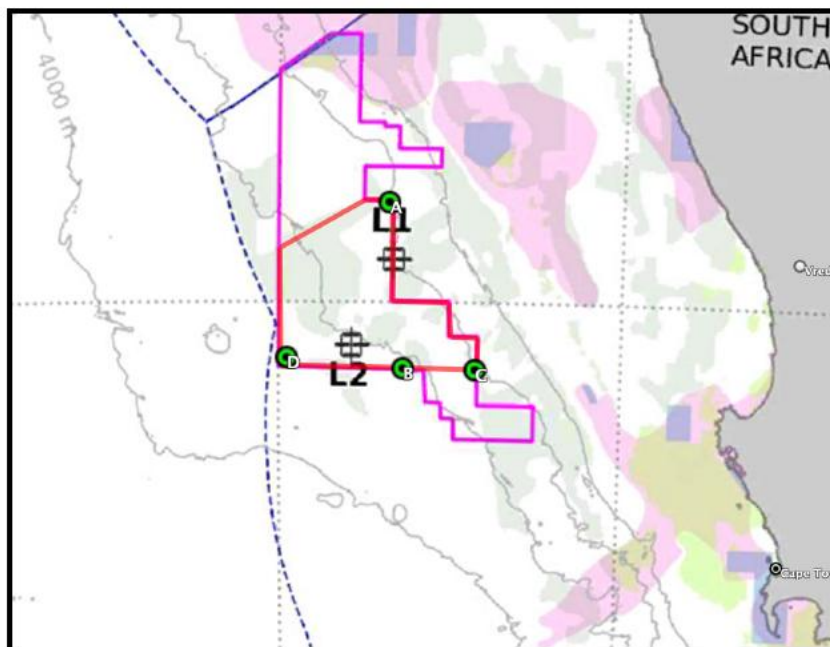
²¹ DESIAR at p. 434

²² DESIAR at p. 434

²³ See DESIAR at p. 9; DESIAR at p. 90

from a well at the maximum possible depth, factoring in any expected corresponding increase in release rates or response times.

23. Further, other possible release locations within the Area of Interest would be closer to shore, international waters, or sensitive areas. For example, moving release point L1 50 km north would place it at about the same depth, but closer to Namibian waters and multiple EBSAs and MPAs (see Point A in the figure below). Similarly, a spill location 55 km southeast of L2 would be closer to shore (see Point C in figure below). These alternative spill locations could increase the amount of oil impacting the shore, both in South Africa and Namibia. Additionally, the DESIAR should model a release location in the southwest corner of the Area of Interest, which would not only reflect the deepest possible drilling depths, but would be located closer to the unnamed seamount located approximately 50 km west of the Area of Interest, which the DESIAR identified as a biodiversity hotspot.²⁴



The oil spill model scenarios should not have been limited to 60 days.

24. The DESIAR's oil spill models limited their assessment of the spread of spilled oil to just 60 days.²⁵ They justified this decision to limit their analysis by stating: "As will be seen in the results, a negligible amount of oil remains at the end of the simulation."²⁶
25. However, this justification is not supported by the modelling results, which indicate that a significant amount of oil would remain in the environment 60 days after a blow-out event. Specifically, the model results show large percentages (>40%) of oil remaining either on the surface

²⁴ DESIAR at p. 159

²⁵ DESIAR at Appendix F, p. 13.

²⁶ DESIARR at Appendix F, p. 13.

or as dispersed droplets in the water column at the end of the simulations, which is far from negligible.²⁷

26. The DESIAR estimated a spill of over 1,000,000 barrels of oil in 20 days.²⁸ Therefore, if 40% (or even 10%) of the oil remains on the water or surface after 60 days, this means that a large amount of oil could still eventually impact shorelines or other important biological areas. These potential impacts needed to have been modelled and assessed by the DESIAR.

The oil spill models failed to conduct near-field modelling.

27. As highlighted by Danielle Reich in her report attached as Annex A, an expert on oil spill modelling, no near-field modelling input parameters or results are presented in the DESIAR, which suggests that no near-field modelling has been conducted.
28. As Reich describes, the lack of near-field modelling is a “significant limitation,” which undermines the oil spill model results and the DESIAR’s conclusions. The near-field plume dynamics could significantly impact the far-field model results, leading to important implications for impacts and response planning.

The DESIAR needs to evaluate the potential harmful impacts of oil plus dispersants.

29. In the event of a major spill, the DESIAR provides for the “[u]se of low toxicity dispersants.”²⁹ The use of dispersants can further increase the toxicity of oil and/or result in sublethal effects, including bioaccumulation of polycyclic aromatic hydrocarbons (PAHs) in marine food webs.³⁰
30. While dispersants alone can have low toxicity, the larger concern is the combination of oil and dispersants. In combination with crude oil, dispersants can increase the overall toxicity and absorption of oil by organisms.³¹ The DESIAR’s Marine Ecology Specialist Assessment acknowledged this fact, noting “significant toxicity effects from both oil and dispersants [have been] reported for deep-water corals.”³² However, the DESIAR did not evaluate the potential ecological impacts of oil plus dispersants, particularly on nearby marine protected areas and Ecologically or Biologically Significant Areas (EBSAs).
31. Given the toxic effects associated with dispersant use, the DESIAR should have explained why dispersants were selected as a mitigation measure.
32. Further, as described in Reich’s report, the Preliminary Oil Spill Contingency Plan relies on unsupported and unrealistic assumptions about the amount of dispersants that will be available in the event of a major spill. The DESIAR needs to model and assess the worst-case scenario of dispersant availability in analysing even the mitigated impacts of a major oil spill.

²⁷ See DESIAR at Appendix F, p. 47 (Figure 25)

²⁸ DESIAR at Appendix F, p. 12. As previously discussed, the spill would likely be even larger since the 20-day spill duration is unrealistically short.

²⁹ DESIAR at p. 448.

³⁰ Almeda, R., Wambaugh et al., *Interactions between zooplankton and crude oil: toxic effects and bioaccumulation of polycyclic aromatic hydrocarbons*. 8 PloS one e67212 (2013).

³¹ See James Wise & John Wise Sr., *A review of the toxicity of chemical dispersants*, 26 Rev. Environ. Health 281 (2011), <https://doi.org/10.1515/reveh.2011.035>.

³² DESIAR at Appendix J, p. 226.

The oil spill models relied on inaccurate thresholds for impacts.

33. The DESIAR's oil spill models adopted a surface threshold of 5 μm thickness, a water column threshold of 58 ppb, and a shoreline oiling threshold of 10 g/m^2 .³³ The modelling results only showed the extent of oil above these thresholds, which directly informed the assessment of social, economic, and ecological impacts in the rest of the DESIAR. Therefore, the DESIAR assumed that oil present below these thresholds would have *no* impact on fisheries, communities, or wildlife. This was an unjustified assumption for several reasons.
34. First, as described by Reich, oil thresholds for socio-economic impacts are typically even lower than those for ecological impacts. A surface threshold of 0.04 μm should have been used, since this is the amount of oil that will appear as a silver sheen at the surface of the water, and fishing activities are often prohibited in areas of visible oiling. Similarly, a shoreline oiling threshold of 1 g/m^2 is more accurate for assessing the amount of oil that would trigger clean-up efforts and affect human use of beaches.
35. Second, the ecological thresholds adopted by the oil spill models are based on the level of oil that would result in *lethal* injury to wildlife. Oil present at levels below these thresholds could still be enough to harm wildlife. Because the DESIAR relied on these arbitrarily high thresholds, sub-lethal but significant impacts to marine and coastal wildlife were not analysed by the DESIAR.
36. Specifically, the 5 μm surface threshold "was chosen as a margin to the thickness that would impart a lethal dose to an intersecting wildlife individual."³⁴ However, the DESIAR did not provide any justification for why no impacts would be expected at oil levels at or below 5 μm . In fact, studies have found that significant harm is possible at far lower oil slick thicknesses.³⁵
37. Similarly, the 59 ppb threshold was based on acute exposure to dispersed oil for aquatic species.³⁶ The DESIAR should explain why this threshold is sufficient to also predict chronic effects to aquatic wildlife.
38. While the DESIAR did not provide a source for the 10 g/m^2 shoreline oil threshold it adopted, this threshold aligns with a threshold found by French McCay for lethal impacts to wildlife.³⁷ McCay suggests a threshold of 1 g/m^2 for sub-lethal impacts.³⁸

The DESIAR failed to analyse impacts on the Namibian environment or communities.

³³ DESIAR at Appendix F, p. 32.

³⁴ DESIAR at Appendix F, p. 32.

³⁵ See, e.g., Wegeberg et al., *EOS – Environment & Oil Spill Response. An analytic tool for environmental assessments to support oil spill response planning: Framework principles, and proof-of-concept by an Arctic example*, 199 Marine Pollution Bulletin 115948 (2024) (noting that the default surface threshold limit for harm/change in seabird feather structure is 0.1 μm , and the threshold value for risk of uptake of seawater in seabird feathers is 3 μm).

³⁶ DESIAR at Appendix F, p. 32.

³⁷ See Deborah French-McCay et al., *Counter-historical study of alternative dispersant use in the Deepwater Horizon oil spill response*, 180 Marine Pollution Bulletin 113778 (2022) (noting that a shoreline oiling threshold of g/m^2 represents an "oil thickness that has been assumed lethal to birds").

³⁸ Deborah French McCay, *Oil and Chemical Spill Modeling for Risk Assessment*, available at: https://dec.alaska.gov/media/5286/6_frenchmccay.pdf.

39. Every modelled oil spill scenario presented in the DESIAR found “a probability that the oil will reach the northern limit of the EEZ and extend into Namibia Waters.”³⁹
40. Under international law, South Africa is obligated to consider the transboundary environmental impacts of projects. This obligation was recently confirmed by the High Court in *The Green Connection*, which held that “NEMA, read in light of sections 232 and 233 of the Constitution, placed an obligation for [Environmental Impact Assessments] to assess the environment impact of the transboundary impacts it predicted may be caused by the proposed project.”⁴⁰
41. The DESIAR does not contain sufficiently detailed analysis of how a major oil spill would impact Namibian communities, ecosystems, cultural heritage, or protected areas.

The DESIAR does not include detailed response plans

42. The DESIAR does not include the Blow Out Contingency Plan (“BOCP”) or the Oil Spill Contingency Plan (“OSCP”) for the Proposed Project in the Final ESIAR.
43. The Final ESIAR states that the “The operator TEEPSA will have a Blow-Out Contingency Plan (BOCP) in place that sets out its detailed response plan and intervention strategy, to be implemented in the unlikely event of a blow-out”⁴¹ and “Any oil spill related discharges would be managed by an Oil Spill Contingency Plan (OSCP) that the Operator will be required to compile and have approved by government prior to drilling.”⁴² Together, the OSCP and BOCP set out TEEPSA will respond to a well blowout and oil spill.
44. These plans are to be developed at some future date, in accordance with the process set out at section 11.3.7.4 of the DESIAR for the OSCP, though no process is identified for the development of the BOCP. We note that TEEPSA’s Oil Spill Response Strategy is included in the documents available on SLR’s website, but this is not the same as a plan, and the details of which do not appear to be engaged in the DESIAR. The BOCP, according to the DESIAR, will be an internal document. No provision is made for public participation in respect of either document.
45. Other plans are also envisaged, but do not appear to be part of the DESIAR documents: “the operator will prepare and implement emergency response and oil spill contingency plans (e.g. SOPEP, OSCP, BOCP OSRP).”⁴³
46. The OSCP and BOCP are the documents which will define TEEPSA’s plans to manage and mitigate a well blowout and oil spill caused by the Project. These plans are essential mitigation measures, the details of which are necessary to inform the impact assessment. The DESIAR assumes successful implementation of these measures without detailing the specific equipment that will be available (including any offshore drilling equipment should a relief well need to be drilled), as well as the logistics informing actual response time, such as – but not limited to - transport or

³⁹ DESIAR at Appendix F, p. 78/162

⁴⁰ *Green Connection NPC and Another v Minister of Forestry, Fisheries and the Environment and Others* (5676/2024) [2025] ZAWCHC 349 (13 August 2025) at para. 189.

⁴¹ DESIAR at p. 99.

⁴² DESIAR at p. 116.

⁴³ DESIAR at p. 447

shipping requirements for the capping stack mobilisation scenarios, implications of attempting to install a capping stack at a deep sea location in potentially adverse and challenging weather conditions, implications of having to drill a relief well, and associated time requirements for all scenarios. The response is integrally connected to the mitigation of this impact.

47. Section 24(4)(b)(ii) of NEMA provides that the environmental impact assessment process must include an investigation of the mitigation measures to keep adverse impact to a minimum. Section 24(4)(a)(v) of NEMA provides that interested and affected parties must be given a reasonable opportunity to participate in the environmental impact assessment process.
48. Consequently, the DESIAR should include the response plans, to inform rigorous assessment of the mitigation measures and consequent impacts, and to allow for public participation in respect of these plans.
49. This was recently confirmed by the court in *The Green Connection*,⁴⁴ in respect of the TEEPSA's plans for block 5/6/7.

B. MARINE IMPACTS

The DESIAR failed to analyse ecosystem services.

50. According to the Terms of Reference for the Marine Ecology Specialist Assessment, the DESIAR should "Identify, describe and assess the significance of potential impacts of the proposed exploration programme on local marine biodiversity *and ecosystem services*."⁴⁵
51. With the exception of fisheries, the DESIAR does not evaluate how the project could impact any other ecosystem services. The deep sea provides a wealth of regulating, provisioning, and supporting ecosystem services that could be impacted by the proposed activities, and thus should have been evaluated by the DESIAR.⁴⁶ These services include (among others) climate regulating services (carbon capture and storage), biomass production, and cycling of deep-sea nutrients that supply upwelling systems that support high productivity.⁴⁷ The proposed drilling activities will disturb deep sea sediments and benthic and pelagic communities that provide these services.

The DESIAR relies on undisclosed baseline data.

52. The DESIAR includes numerous references to baseline data that is not publicly available and thus cannot be verified by public stakeholders. For example, the Marine Ecology Specialist Assessment states that its assessment was based on existing information, including from environmental

⁴⁴ *Green Connection NPC and Another v Minister of Forestry, Fisheries and the Environment and Others* (5676/2024) [2025] ZAWCHC 349 (13 August 2025) at para. 199 – 203.

⁴⁵ DESIAR at Appendix J, p. 19 [emphasis added]

⁴⁶ M. Emilia Bravo et al., *Insights from the management of offshore energy resources: Toward an ecosystem-services based management approach for deep-ocean industries*, 9 *Frontiers in Marine Science* (2023).

⁴⁷ Jennifer Le & Kirk Sato, *Ecosystem Services of the Deep Ocean*, available at: https://www.ocean-climate.org/wp-content/uploads/2017/03/ecosystem-services-deep-ocean_ScientificNotes_Oct2016_BD_ppp-9.pdf; Claire Armstrong et al., *Services from the deep: Steps towards valuation of deep sea goods and services*, 2 *Ecosystem Services* 2 (2012)

baseline surveys for adjacent blocks.⁴⁸ The DESIAR and Marine Ecology Specialist Assessment also refer to surveys allegedly conducted *within* the DWOB Block.⁴⁹

53. Given the DESIAR's heavy reliance on these surveys, they should be made available for review to allow an evaluation of the methods, sampling plan, locations, and detailed findings. Without this information, it is not possible to determine if the spatial and temporal resolution of sampling was representative of the range of depths and habitats in the Area of Interest and the seasonal variation of environmental conditions and fauna.

The DESIAR did not assess impacts within the project's full area of influence.

54. The DESIAR identifies an "Area of Influence", which it describes as indicating "where and to what extent the Operator should focus its efforts on analysing, mitigating and compensating for the direct and indirect impacts of the proposed project."⁵⁰

55. The DESIAR explicitly states that it:

56. "will consider potential impacts of the proposed exploration activities on the biophysical and social environments that have been identified within the projects area of influence, which encompasses areas affected by:

57. Activities and facilities that are directly owned, operated or managed by the Operator (including contractors and sub-contractors) as part of the project;

58. Indirect project impacts on biodiversity or ecosystem services upon which potential affected communities' livelihoods depend; and

59. Potential unplanned events, which are unintended but may occur as a result of accidents or abnormal operating conditions."⁵¹

60. The Figure the DESIAR provides of its "Expected Area of Influence" does not include the area of influence for unplanned events.⁵² Further, the extent of the "Area of Influence for Normal Operations" in this figure does not appear to have incorporated the furthest predicted impacts according to the drilling discharge and noise models, despite the DESIAR stating that the area of influence "will be re-confirmed" based on the results of the underwater noise, drilling discharge, and oil spill models.⁵³ The DESIAR could not have adequately identified or assessed all possible impacts within the area of influence if it did not apply the correct boundary.

61. Further, the DESIAR often constrained its analysis to the *Area of Interest*, rather than the *Area of Influence*. As a result, direct and indirect impacts of the proposed project were not adequately analysed.

⁴⁸ DESIAR at Appendix J, p. 21.

⁴⁹ See, e.g., DESIAR at Appendix J, pp. 32-33 (repeatedly referring to a "recent Environmental Baseline Survey (EBS) completed within the Block")

⁵⁰ DESIAR at p. lvii

⁵¹ DESIAR at pp. 55-56

⁵² DESIAR at p. 130 (Figure 6-1).

⁵³ DESIAR at pp. 129. Note, this page also inexplicably and unjustifiably separated the areas of influence of "normal operations" and "unplanned events".

62. For example, the Marine Ecology Specialist Assessment states that it describes the “EBSAs within the Project’s indirect and direct area of influence”, but the figure it cites and the distances it provides only address overlap (or lack thereof) with the licence block and Area of Interest.⁵⁴ Helicopter and vessel paths (within the larger Area of Influence) likely overlap with several EBSAs and MPAs.
63. Similarly, Figures 3-30, 3-45, and 3-37 in the Marine Ecology Specialist Assessment show important biological use areas for several species in relation to the licence block, but not the Area of Influence, indicating that the DESIAR did not adequately consider potential overlap or impacts to these species.

The DESIAR failed to clearly explain the project’s compatibility with applicable law.

64. The DESIAR does not clearly explain the project’s compatibility with the applicable law regarding activities permitted within designated Critical Biodiversity Areas. According to the DESIAR, “Non-invasive (e.g. seismic surveys) and invasive (e.g., exploration wells) exploration activities are classified as having ‘restricted compatibility’” within CBA Natural areas.⁵⁵ It further states that “For the current project, drilling would be allowed within the CBAs, subject to the proposed mitigation.”⁵⁶ However, the latest draft Marine Biodiversity Sector Plan (published July 2024) categorizes all petroleum exploration activities as “not compatible” within both Natural and Modified Biodiversity Conservation Areas, as acknowledged by the DESIAR’s Marine Ecology Specialist Assessment.⁵⁷ Neither the DESIAR nor its Marine Ecology Specialist Assessment explain how the proposed project is compatible with this policy, given that over half of the area of interest (roughly 7,000 km²) overlaps with designated CBA-Natural areas.⁵⁸
65. While the 2024 draft Marine Biodiversity Sector Plan is not itself a binding document, it is described as “a spatial articulation of the requirements embedded in a range of existing legislation and strategies.”⁵⁹ Abiding by this plan will “ensure necessary biodiversity management and conservation measures ... in line with [South Africa’s obligations under] Target 1 of the Convention on Biological Diversity’s Kunming-Montreal Global Biodiversity Framework (GBF)”.⁶⁰ Therefore, conducting petroleum-related activities within CBA and EBSA areas may violate South African law and its legal obligations under international law.

The DESIAR conclusions are based on the duration of the disturbance, rather than the duration of biological impacts.

66. Generally, the DESIAR’s conclusions on the magnitude, duration, and significance of impacts and risks do not match the content of the DESIAR’s actual assessment. The DESIAR shows a pattern of assigning impact ratings based on the duration of the activity or disturbance, but not the duration that environmental impacts will last. For example, the DESIAR estimates that impacts from drilling

⁵⁴ See DESIAR at Appendix J, pp. 107-108 (including Figure 3-41)

⁵⁵ DESIAR at p. 210

⁵⁶ DESIAR at p. 210

⁵⁷ Appendix J at p. 112

⁵⁸ DESIAR at p. 365

⁵⁹ 2024 Draft Marine Sector Plan at p. 6

⁶⁰ *Id.* at p. 5

discharges could extend over 50 km away from the well sites⁶¹ and could result in “Chronic accumulation of persistent contaminants in the marine environment; Acute or chronic effects on biota, including effects on productivity; and Acute or chronic effects on other biota (i.e. indirect effects on biodiversity).”⁶² Yet the DESIAR categorized impacts to the water column from drilling discharges as “short-term,” meaning anticipated to last less than 15 days.⁶³ But 15 days is the duration that the discharge models estimated that pollutants would be present in the water column “above significant risk,”⁶⁴ not the duration of impacts from the pollution. The chronic impacts to wildlife that will result from being exposed to pollutants at levels above a significant risk will likely last much longer than 15 days. NEMA requires assessment of the significance and duration of *impacts*, not merely how long a disturbance will be present in the environment. Since the only justification the DESIAR provides for these ratings is the models results, it’s clear that the DESIAR only considered the presence of the discharge pollution, and not the impacts of this pollution, in its ratings.

The DESIAR double-counted mitigation measures in order to reduce impact ratings.

67. The DESIAR’s Marine Ecology Specialist Report lists several “Project Controls” including ensuring the campaign is undertaken in a manner consistent with international practice and best available technologies; buffer zones for sensitive areas; pre-drilling ROV surveys to site wells to avoid sensitive hardground habitats; use of low toxicity Group III NADF fluids; discharge of cuttings 5 m below the surface during riser drilling; continuous monitoring of drilling fluid volumes; testing the integrity of the riser and BOP on installation; and final ROV clearance survey.⁶⁵ Generally, the DESIAR does not sufficiently explain why these project controls (or any of its adopted mitigation measures) were chosen over possible alternatives.
68. According to the DESIAR, implementation of the Project Controls were “considered in the pre-mitigation impact rating.”⁶⁶
69. However, the DESIAR later referred to these same Project Controls as a basis for reducing the ratings assigned to post-mitigation impacts.
70. For example, pre-drilling ROV surveys and siting wells to avoid vulnerable habitats and communities were listed as mitigation measures “to reduce impacts from smothering and disturbance of benthic fauna.”⁶⁷ The “pre-drilling ROV survey” was the sole reason cited for reducing the residual impact for smothering and disturbance of benthic fauna on hard substrate from “High” to “Medium.”⁶⁸ Since pre-drilling ROV surveys were factored into the pre-mitigation significance rating of “High”, impacts should not have been further reduced to “Medium.”
71. Similarly, the impact rating for “bioaccumulation, toxicity and hypoxic effects on benthic fauna on unconsolidated sediment” was reduced from “Very Low” to “Negligible”.⁶⁹ This reduction was

⁶¹ DESIAR at p. 350

⁶² DESIAR at p. 349

⁶³ DESIAR at p. 350

⁶⁴ DESIAR at p. 318

⁶⁵ DESIAR at Appendix J, pp. 153-154.

⁶⁶ DESIAR at Appendix J, p. 153

⁶⁷ DESIAR at Appendix J, p. 156

⁶⁸ DESIAR at Appendix J, pp. 165-166

⁶⁹ DESIAR at Appendix J, p. 171

based in part on using only low-toxicity additives,⁷⁰ which was a Project Control that should have been factored into the pre-mitigation impact rating.

C. UNDERWATER NOISE MODELS

Failure to consider baseline noise levels in the project area

72. The DESIAR stated explicitly that its noise modelling “did not take into account the actual baseline noise in the environment as the single and continuous noise from the operations will drown out any existing baseline noise.”⁷¹ This is problematic for several reasons.
73. For one, the fact that project noise will be louder than baseline noise is not a reason for this ambient noise to not be considered. In fact, baseline noise needs to be considered *because* project noise is likely to be louder, and the extent of harm to marine wildlife will depend on *how much* louder project noise is above the baseline. This is why it is important for noise impact analysis to incorporate an accurate estimate of baseline noise levels. The DESIAR’s noise models explicitly chose to ignore baseline noise without justification.
74. Second, contrary to its statement that actual baseline noise was not taken into account, the DESIAR later diminished the extent of noise impacts based on “the significant local shipping traffic and relatively strong metocean conditions,” because of which “ambient noise levels are expected to range between 5 to 20 dB higher than the lowest level.”⁷² The DESIAR never cited any studies to support the noise contributions of shipping and metocean conditions in a far offshore, open ocean environment, and how these noise levels could vary depending on the time of day or season. Further, the DESIAR assumed these elevated noise levels throughout the water column, but noise from shipping and weather disturbance likely only influences noise levels near the surface. The DESIAR should have based its noise modelling analysis on actual baseline noise measurements, especially since ambient noise levels were relied on as a basis for lowering anticipated impacts to wildlife.

The DESIAR failed to evaluate noise impacts to important ecological areas and behaviours

75. The DESIAR concluded that noise impacts to marine wildlife would be of “Very Low” significance.⁷³ However, the DESIAR never analysed how elevated noise levels could impact nearby MPA, CBA, and EBSA areas. The DESIAR should have evaluated how much noise levels could change in these areas as a result of the proposed project, and how these elevated noise levels could affect use of these areas. This is especially essential, since these areas are protected because of their importance to ecologically important and noise sensitive species, such as marine mammals, fish, and sea turtles.
76. Further, the DESIAR only broadly considered direct noise impacts to marine wildlife (the extent and likelihood that individuals would experience hearing loss or behavioural disturbance as a result of project noise). The DESIAR never considered whether project noise could result in altered

⁷⁰ DESIAR at Appendix J, p. 157

⁷¹ DESIAR at p. 323

⁷² DESIAR at p. 358

⁷³ DESIAR at p. xxii

migration routes, displacement from important feeding or breeding areas, altered swimming patterns, or other ecologically significant impacts. For example, the DESIAR stated that “cetaceans potentially associated with various seamounts and topographical features within or in the vicinity of the DWOB Licence Block (e.g. the unnamed topographical feature located approximately 40 km west of the AOI), may be affected by the vessel and drilling noise,” but never described the possible effects.⁷⁴ Nor did it seem to take these effects into account in its impact rating, as it concluded that the impact would be of “very low magnitude”, of “local extent” and of “medium-term duration.”⁷⁵ Even minor changes to animal migration, feeding, and breeding patterns could result in significant and long-term population-level impacts. It is critical for the DESIAR to factor these potential impacts into its impact level ratings.

The DESIAR underestimates impacts to endangered species

77. Given the low population sizes of Endangered and Critically Endangered species, any impact would pose a significant risk. For this reason, it is essential for the DESIAR to conservatively and accurately understand the potential impacts of the project to endangered populations. It has failed to do so in several ways.
78. The DESIAR notes that the project will require frequent helicopter overflights, which “could affect seabirds in breeding colonies and roosts on the mainland coast.”⁷⁶ It also detailed the findings of numerous studies which have found severe, population-level impacts on seabirds from aircraft noise, including “loss of usable habitat, increased energy expenditure, reduced food intake and resting time and consequently impaired body condition, decreased breeding success and physiological changes,” and that “[n]esting birds may also take flight and leave eggs and chicks unattended, thus affecting hatching and recruitment success.”⁷⁷ According to the DESIAR, helicopter flight paths could impact roosting and nesting sites for several Endangered species, including the African Penguin, Bank Cormorant, Cape Cormorant, and Cape Gannet.⁷⁸ Any disruption to the breeding success, recruitment, and physiological health of these species could increase their risk of extinction and/or hinder their ability to recover. Yet, the DESIAR predicts “low” impacts to marine wildlife from helicopter noise, even prior to mitigation or avoidance measures.⁷⁹ This impact rating does not make sense given the possibility of significant disturbance to highly sensitive species.
79. The DESIAR concluded that noise impacts to turtles would be “Very Low” because impacts would be of “low intensity”, medium-term duration, and local extent, and turtles were only a “Medium” sensitivity receptor.⁸⁰ All of these conclusions seem unreasonably low given the Critically Endangered status of Leatherback sea turtles and the project’s overlap with areas that were designated as CBAs because of their importance to migrating sea turtles and hatchlings.⁸¹ As the

⁷⁴ DESIAR at p. 359

⁷⁵ DESIAR at p. 359

⁷⁶ DESIAR at p. 367

⁷⁷ DESIAR at p. 368

⁷⁸ DESIAR at p. 367

⁷⁹ DESIAR at p. 370; Further, the DESIAR never assessed the distance flight paths would have to deviate to avoid impacting seabird colonies, and therefore, the vague commitment to “Pre-plan flight paths to avoid seal and bird colonies” is not enough to ensure impacts are avoided or mitigated. DESIAR at p. 357.

⁸⁰ DESIAR at p. 378

⁸¹ DESIAR at p. 365

DESIAR notes, hatchlings are especially vulnerable to noise impacts because they “cannot move away from the approaching sound source, and are therefore likely to suffer physiological injury within the predicted impact zone.”⁸² From the DESIAR’s description of noise harms to turtles, a high sensitivity rating, high intensity, and long-term duration rating seems more appropriate, given the potential for permanent injury to members of a critically endangered species, which could have long-term population implications even if only a few individuals are affected.

80. The DESIAR’s assessment of impacts of an operational spill as of “Low” Significance also seems unjustified given the potentially catastrophic impacts of a worst-case operational spill scenario. As the DESIAR notes, a spill could potentially occur from vessels en route to the offshore area, leading to oil impacts to highly sensitive coastal receptors.⁸³ Seabirds are particularly vulnerable, as Endangered African Penguin, Cape Gannet, Cape Cormorant, and Bank Cormorant colonies could be affected by an operational spill.⁸⁴ If a spill were to occur near one of these colonies, impacts would not be “short-term” or “fully reversible”, as the DESIAR claims.⁸⁵ This is evidenced by the MV Treasure fuel oil spill which occurred in 2000, which resulted in the oiling of nearly 19,000 African penguins (nearly 20% of the population, and more penguins than are in existence today). If a similar operational fuel spill were to occur near an African penguin breeding colony today, it could mean extinction for the species.

D. NEED AND DESIRABILITY

Inadequate assessment of need and desirability of the proposed activities

81. The DESIAR states that the proposed project is in alignment with South Africa’s plans and policies on energy, economy, climate change, and resource management and frames the need and desirability assessment as a demonstration of the Project’s “‘fit’ with the policy and planning framework adopted by the South African Administration’.”⁸⁶ On the contrary, the proposed activities are incompatible with South Africa’s international commitments and its domestic laws.
82. The DESIAR’s need and desirability assessment solely focus on the exploration phase assessment and does not assess the production phase of the Project, in other words, an assessment of the full life-cycle of the Project for purposes of determining the need and desirability of the Project was not done. This singular focus on the exploration phase is so strenuously foregrounded that emphasis is placed on the point that the DESIAR’s need and desirability analysis is for the ‘*exploration* project’.⁸⁷ This emphasis on the exploration phase aims to justify a need and desirability assessment that is limited to the exploration phase of the Project and not as it relates to subsequent phases such as the production phase. To this end, the DESIAR at footnote 61, cites a 2020 ruling by the ‘Norwegian Supreme Court that held that during an exploration phase of a such projects ‘there will be no significant global environmental consequences’. And that negative environmental impacts will only occur when ‘profitable discoveries have been made’ and as such,

⁸² DESIAR at p. 377

⁸³ DESIAR at p. 429

⁸⁴ DESIAR at p. 430

⁸⁵ DESIAR at 430

⁸⁶ Paragraph 10.0 of the DESIAR.

⁸⁷ Paragraph 10.0 of the DESIAR.

a need and desirability assessment of negative environmental impacts ought to only be analysed and considered when applications for licenses for the production phase are lodged with license issuing authorities.

83. This exclusion of the production phase and other future phases for assessing the need and desirability of the Project is inadequate in at least two fatal ways:
84. The DESIAR omits a full life-cycle assessment of the Project despite three decisions⁸⁸ of the High Court that held that a comprehensive assessment that considers the entire life-cycle of a project is necessary to place all relevant information at the decision-maker's purview. Consequently, the limiting of the DESIAR's assessment of need and desirability to only the '*exploration project*' or exploration phase is inadequate and in direct noncompliance with case law as recent as 13 August 2025. This fundamental flaw in the understanding of the scope of a need and desirability assessment that is required - even for an exploration EIA - exposes the incomprehensive nature of the DESIAR's assessment of need and desirability. We submit that such a flaw can only be cured through a comprehensive assessment that looks at the entire life-cycle of the proposed project in line with South Africa's court jurisprudence on this issue.
85. Notwithstanding the DESIAR's omission of a full life-cycle assessment of the Project, the assessment of need and desirability posits potential future (production) economic benefits as the reason why the proposed exploration activities are needed and desirable, yet limits consideration of negative impacts to the exploration phase only. In the *Green Connection NPC*, the court unequivocally held that:
- "Whilst it is correct that the specific activity...is exploration and not production, and that the former process will not always result in the latter process, the two processes are intertwined. There would be no point in conducting an exploration activity unless an entity hoped to proceed to the next phase of production....This is the accumulative, phased process created by the legislation."⁸⁹
86. It is clear from the court's reasoning that when assessing need and desirability for an exploration project, it is impermissible to omit a full life-cycle assessment of the Project and that such an omission is contrary to the legislative and regulatory requirement. As such, the need and desirability assessment for this proposed Project is conceptually and legally flawed from the onset and entirely.

Inadequate consideration of need and desirability in the context of climate change

87. The DESIAR refers to South Africa's climate change strategies and policies and asserts that 'Due to the limited scale and short duration (three years) of the Project, it is not expected to contribute significantly to climate change impacts for Project-affected local communities and natural ecosystems.'⁹⁰ The DESIAR also claims that 'petroleum exploration is not per se deemed

⁸⁸ *Earthlife Africa Johannesburg v Minister of Environmental Affairs and Others* [2017] 2 All SA 519 (GP); *Sustaining the Wild Coast NPC and Others v Minister of Mineral Resources and Energy and Others* 2022 (6) SA 589 ('Sustaining the Wild Coast') and *Green Connection NPC and Another v Minister of Forestry, Fisheries and the Environment and Others* [2025] ZAWCHC 349 ('TEEPSA 567').

⁸⁹ *Green Connection NPC and Another v Minister of Forestry, Fisheries and the Environment and Others* (5676/2024) [2025] ZAWCHC 349 (13 August 2025) at para. 151.

⁹⁰ Paragraph 6 of the DESIAR: Appendix O.

incompatible with South Africa's climate change commitments'⁹¹. In addition, the DESIAR argues that the Supreme Court of Appeal (SCA) ruling in *Minister of Mineral Resources and Energy and Others v Sustaining the Wild Coast NPC and Others 2024* (SCA judgment) backs the view that exploration activities do not contribute to climate change.⁹²

88. The DESIAR misinterprets the SCA judgment⁹³ regarding oil and gas exploration in relation to South Africa's international climate change commitments. The SCA was merely taking an (erroneous) exception to the high court making a finding in respect of whether or not "authorising new oil and gas exploration, ..." complies with South Africa's international climate change commitments, it did not make a determination as to whether or not exploration and/or production of oil and gas contributes to climate change. The SCA would have erred if it had found that exploration and/or production of oil and gas does not contribute to climate change, as it is widely accepted that the extraction and use of fossil fuels (coal, oil, natural gas etc.) is a major contributor to climate change. Even if we accept the DESIAR's reading of the SCA judgment, it still does not absolve anyone from the obligation to conduct a thorough assessment that evaluates the entire lifecycle of the proposed project. Furthermore, the SCA upheld the judgment of the Makhanda High Court and its judgment does not disturb the High Court's finding that climate change is a relevant factor to consider even during the exploration stages of a project. It is also important to note that the SCA judgment is currently under appeal at the Constitutional Court under case no. 196/2024.
89. The DESIAR cites the potential economic benefits of future natural gas production to justify the need for exploration activities. The DESIAR claims that the proposed project, including production, is "expected to generate direct, indirect, and induced economic effects across multiple sectors. These include increased production and growth in gross domestic product..., enhanced fiscal and the creation of employment opportunities, along with associated employee remuneration and household income"⁹⁴. However, it deliberately fails to flag potential negative impacts of the proposed project (all phases) on climate change in its motivation for the need and desirability of the proposed activities. What is worse is that, a comprehensive assessment of the need and desirability of exploring for new oil and gas reserves for climate change and the right to food perspective, is a relevant factor to consider.
90. The DESIAR states that exploration of gas and oil is not incompatible with South Africa's climate change plans and policies⁹⁵. It is submitted that the issue is not whether or not exploration of gas and oil is compatible with climate change policies or plans, it is rather, whether all relevant factors have been considered and that the competent authority has been provided with all the relevant information necessary to grant or refuse environmental authorisation.

Assumption of gas as a transition fuel

91. The DESIAR claims that gas may act as a transition fuel.⁹⁶ It also alleges that exploring for hydrocarbon resources is needed and desirable. Nothing could be further from the truth. It is our

⁹¹ Paragraph 10.1.3 of the DESIAR.

⁹² Paragraph 10.1.3 of the DESIAR.

⁹³ Paragraph 10.1.3 of the DESIAR

⁹⁴ Paragraph 8.4.1.2 of the DESIAR

⁹⁵ Paragraph 10.1.3 of the DESIAR.

⁹⁶ Paragraphs 8.2, 10.0 and 10.1.2 of the DESIAR.

submission that any assertion of natural gas being a transition fuel is unfounded and contradicts widely accepted scientific conclusions. It is both inaccurate and deceptive to suggest that gas is necessary as a transition fuel in South Africa. Recent independent studies dispute the notion that fossil gas is essential for electricity generation or as a transition fuel, and they confirm that renewable energy, paired with battery storage, can fulfil nearly all of South Africa's energy requirements.

92. The International Institute for Sustainable Development's (IISD) report "Gas Pressure: Exploring the Case for Gas-Fired Power in South Africa" (March 2022) highlights that while it was once believed that fossil gas would be essential either during the transition to low-carbon energy or as part of the long-term energy mix for electricity generation, the dramatic reductions in renewable energy and battery storage costs have overturned this perspective. Analysis of South Africa's electricity system indicates that gas supply is not technically needed until at least 2035, if at all. In recent years, the risks associated with gas have either increased or become better understood. As a result, developing a large gas-to-power system now could lead to significant negative consequences for South Africa. The shift toward decarbonization, combined with the declining costs of renewable energy and storage, presents risks for gas investments, which are likely to result in higher consumer costs, challenges for workers during the transition, and losses for investors.⁹⁷
93. The IISD report highlights some of the risks associated with gas-to-power investment in South Africa. These risks encompass significant contributions to climate change (due to CO₂ and methane emissions from burning gas), growing global pressure to phase out gas because of its climate impacts, financial risks associated with gas-to-power projects, the potential for reduced security of affordable gas supply, the threat of stranded assets, and the risk of adding further just transition challenges (as future gas workers and communities may face similar difficulties to those currently experienced by the coal sector).⁹⁸
94. Meridian Economics' 'Hot Air about Gas – An Economic Analysis of the Scope and Role for Gas-Fired Power Generation in South Africa' (June 2022) report points out that while South Africa's large-scale use of gas appears to be central to current energy policy direction in South Africa, 'this rests on a 2012 vision which pre-dates dramatic reductions in renewable energy costs and carbon emissions space'.⁹⁹ The report further explains that independent analyses from several recent studies indicate that South Africa's power requirements, both now and in the future, can be met with minimal reliance on gas. It states that there is "no evidence to support the large-scale gas envisioned in the GMP, as this is uneconomical even without considering carbon emissions." Meridian highlights that the assumption of gas-fired power generation replacing coal overlooks the fact that other technology combinations are now more effective at replacing coal-fired power than gas, and that gas-fired generation should be compared to these alternatives.¹⁰⁰

⁹⁷ IISD report, piv. Available online at: <https://www.iisd.org/publications/report/south-africa-no-need-for-gas>

⁹⁸ IISD report, pages 8 – 12.

⁹⁹ Meridian report, page ii. Available online at: <https://meridianeconomics.co.za/wp-content/uploads/2022/06/Hot-Air-About-Gas.pdf>

¹⁰⁰ *Ibid*, p1.

95. The Vital Ambition Report,¹⁰¹ produced by Meridian Economics in partnership with the CSIR Energy Centre, states that gas for power generation is only justified in South Africa's energy mix if it is needed for low-utilization flexible capacity (peaker plants) to balance the system during peak power demand. The report confirms that there is no need for investments in gas infrastructure for energy production and generation at present or in the near future.¹⁰²
96. Furthermore the 2019 IRP is in the process of being updated, and should align with South Africa's Nationally Determined Contribution under the Paris Agreement and to keep pace with quickly evolving science and significant reductions in price for solar and wind energy. However, even the 2019 IRP, which is rooted in an outdated and scientifically and economically unsound understanding of the necessity for any gas in the energy mix, only projects the collective contribution of gas and diesel to the 2030 energy mix to be 1.3% combined.¹⁰³
97. Despite the public existence of the above reports to strongly rebut the notion that gas is needed as a transition fuel in South Africa, the DEIAR makes no attempt to consider alternative sources of energy.
98. It furthermore fails to set out the expected volume of the resource to be found in the southern area of interest, or the minimum extent of the resource that would make the project commercially viable for production. Whilst the precise extent of the resource will be determined through the proposed exploration operations, data in the hands of TEEPSA and the joint venture partners will already indicate the possibilities, otherwise they would not be investing in exploration. This information is critical to supporting any claims as to the need for and the ultimate use of the produced resource.

Failure to consider climate change impacts as part of need and desirability

99. In the assessment of climate change impacts as they relate to need and desirability, it is stated in the DESIAR that "exploration is broadly deemed to have limited environmental impacts, including those related to GHG, and to be in principle compatible with and to various degrees in furtherance of the South Africa's policy framework".¹⁰⁴ The discussion above regarding the incorrectness of the distinction between exploration and production, also plagues the DESIAR's analysis of climate change impacts of the need and desirability assessment since such assessment has been restricted to the climate change impacts as they pertain only to the exploration phase of the proposed Project. As such, the climate change assessment in the need and desirability context is conceptually unlawful, its scope is impermissibly circumscribed to the exploration climate impacts only and the assessment fails to meet the consideration threshold required by law.
100. In assessing need and desirability, NEMA requires that development be sustainable and that the competent authority "take into account all relevant factors."¹⁰⁵ The Guidelines requires need

¹⁰¹ Meridian Economics, 2020. A Vital Ambition: Determining the Cost of Additional CO2 Emission Mitigation in the South African Electricity System. See at <https://meridianeconomics.co.za/wp-content/uploads/2020/07/Ambition.pdf>

¹⁰² Gas and peaking resources contribute just 1.1% of total electricity generation in 2025, and 2.4% by 2035 according to the same Meridian report.

¹⁰³ 2019 Integrated Resource Plan, page 42.

¹⁰⁴ Paragraph 10.1.5 of the DESIAR.

¹⁰⁵ 24O(1)(b) of NEMA.

and desirability assessment to address the impact of planned activities on global and international responsibilities relating to the environment, including climate change.¹⁰⁶ Recent court jurisprudence¹⁰⁷ regards failure to conduct a full climate change assessment of the proposed project as non-compliance with section 24O(1) of NEMA.¹⁰⁸ In *Sustaining the Wild Coast*, the court held "... had the decision-maker had the benefit of considering a comprehensive assessment of the need and desirability of exploring for new oil and gas reserves for climate change and the right to food perspective, the decision-maker may very well have concluded that the proposed exploration is neither needed nor desirable."¹⁰⁹ The DESIAR does not contain a comprehensive assessment of the impact of exploration activities on climate change, it reviewed South Africa's climate change policies instead of conducting a proper assessment that looks at the entire life-cycle of the proposed project.

101. As the court indicated in *Sustaining the Wild Coast*, we believe that any rational decision-maker would refuse the environmental authorisation in this case, given the urgency of phasing out fossil fuels to prevent the climate crisis. It is well-established that the climate change 'crisis' demands urgent, swift, and extensive cuts in greenhouse gas (GHG) emissions to limit global warming to 1.5°C. This includes accelerated efforts over the next 5 years to reduce global carbon dioxide emissions by 45% by 2030 compared to 2010 levels, and to reach net-zero emissions by mid-century. To support these claims, a few recent developments related to the climate crisis are briefly discussed below.
102. In August 2021, the Intergovernmental Panel on Climate Change (IPCC), an international organization dedicated to evaluating climate change science, published its 6th Assessment Report (AR6).¹¹⁰ In the summary for policymakers, the IPCC highlights, among other points, that:
103. It is unequivocal that human influence has warmed the atmosphere, ocean and land, and that widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred;¹¹¹
104. The scale of recent changes across the climate system as a whole - and the present state of many aspects of the climate system - are unprecedented over many centuries to many thousands of years;¹¹²
105. Human-induced climate change is already impacting various weather and climate extremes worldwide. The evidence of changes in extremes, such as heatwaves, heavy rainfall, droughts, and tropical cyclones, as well as their connection to human activities, has become stronger since the release of AR5.¹¹³

¹⁰⁶ Paragraph 1.1.8 Page 11 of the Guidelines.

¹⁰⁷ At paragraph 125 of *Sustaining the Wild Coast NPC and Others v Minister of Mineral Resources and Energy and Others* 2022 (6) SA 589.

¹⁰⁸ At paragraphs 76-101 of *Earthlife Africa*.

¹⁰⁹ *Sustaining the Wild Coast NPC and Others v Minister of Mineral Resources and Energy and Others* 2022 (6) SA 589 at para. 125.

¹¹⁰ Climate Change 2021: The Physical Science Basis, available online at: <https://www.ipcc.ch/report/sixth-assessment-report-working-group-i/>

¹¹¹ Paragraph A.1.

¹¹² Paragraph A.2.

¹¹³ Paragraph A.3.

106. Global surface temperature will continue to increase until at least mid-century under all emissions scenarios considered, and that global warming of 1.5°C and 2°C will be exceeded during the 21st century unless deep reductions in CO₂ and other GHG emissions occur in the coming decades;¹¹⁴
107. Many changes in the climate system become larger in direct relation to increasing global warming. They include increases in the frequency and intensity of hot extremes, marine heatwaves, heavy precipitation, and, in some regions, agricultural and ecological droughts; an increase in the proportion of intense tropical cyclones; and reductions in Arctic sea ice, snow cover and permafrost;¹¹⁵
108. Continued global warming is projected to further intensify the global water cycle, including its variability, global monsoon precipitation and the severity of wet and dry events;¹¹⁶
109. From a physical science perspective, limiting human-induced global warming to a specific level requires limiting cumulative CO₂ emissions, reaching at least net zero CO₂ emissions, along with strong reductions in other GHG emissions. Strong, rapid and sustained reductions in CH₄ emissions would also limit the warming effect resulting from declining aerosol pollution and would improve air quality.¹¹⁷
110. On 9 August 2021, the IPCC issued a press release relating to its AR6 report. It states that the report provides new estimates of the chances of crossing the global warming level of 1.5°C in the next decades, and finds that unless there are immediate, rapid and large-scale reductions in GHG emissions, limiting warming to close to 1.5°C or even 2°C will be beyond reach.¹¹⁸
111. The International Energy Agency's (IEA) recent report, *"Net Zero by 2050: A Roadmap for the Global Energy Sector,"* states that reaching net zero by 2050 and limiting global temperature rise to 1.5°C above pre-industrial levels "demands a complete transformation of the energy systems" that support the world's economies. This goal can only be achieved if no new oil and gas fields are approved for development. The report emphasizes the urgent need for widespread deployment of all available clean and efficient energy technologies, along with a halt to approvals for new oil and gas projects.
112. In summary, we submit that a reasonable decision-maker could not approve this project if it were to consider the full life-cycle climate impacts.

Failure to consider climate change impacts on children and future generations

113. The DESIAR also does not consider climate change impacts on children and future generations. NEMA places a duty on the State to ensure participation of all interested and affected parties, including the vulnerable and disadvantaged in environmental governance, recognise the vital role of women and youth in environmental management and promote their full participation

¹¹⁴ Paragraph B.5.

¹¹⁵ Paragraph D.1.

¹¹⁶ Paragraph B.5.

¹¹⁷ Paragraph D.1.

¹¹⁸ <https://www.ipcc.ch/2021/08/09/ar6-wgl-20210809-pr/>.

therein.¹¹⁹ Section 28(2) of the Constitution also places a duty on the state to consider the best interests of children as paramount in every matter that concerns them. This principle is also repeated in the Children's Act.¹²⁰ Despite these legislative requirements, the report fails to consider the impact that this project will have on children.

114. Recently, the United Nations Committee on the Convention on the Rights of the Child published a general comment¹²¹ wherein it stresses the importance of considering the impact of climate change on children and the need to consider children's rights when making decisions that may impact the environment. According to the general comment, children have the right to participate in environmental impact assessments that are child friendly. Some of the child rights that must be considered in the context of climate change is children's right to leisure, play, recreation and health. The report makes no mention of any possible impact on these rights and how such impact will be mitigated.

115. The fact that climate change affects children in different parts of the globe differently and that such impacts are unique from those on adults, is undisputed.¹²² The difference in how climate change affects children is thought to be largely influenced by the preexisting social and economic disparities, and geographical variabilities.¹²³ The impacts are uniquely different for children compared to adults because of the vulnerability of their developing bodies.¹²⁴ The warm spells and heat waves caused by climate change exposes children to heat stress, respiratory and vector-borne diseases, and malnutrition with long term implications. Heavy precipitation events and intense tropical cyclones put children at higher risk of death than adults, exposes them to water-borne /water washed illnesses and malaria, reduces their options for play and social interaction etc. Furthermore, extreme high sea levels may increase the risk of death and bad health for children.¹²⁵

116. It is submitted that the impact of the proposed project on children's and future generations' environmental rights is a relevant factor to be considered by the competent authority, thus the absence of assessment of this factor in the DESIAR amount to non-compliance with section 24O (1) of NEMA. Consequently, the competent authority may not grant environmental authorisation as not all relevant information is placed in his or her purview.

E. SOCIO ECONOMIC IMPACTS

117. NEMA requires all organs of state to apply the section 2 principles of environmental management, including sustainability, equitable access, transparency, precaution, polluter-pays, and intergenerational equity. The EIA Regulations, 2014 further require Environmental Impact

¹¹⁹ Section 2(4)(f) and (g).

¹²⁰ Section 9.

¹²¹ UN Committee on the Rights of the Child General Comment No.26.

¹²² Sheridan Bartlett "Understanding the impacts for children of factors related to climate Change" 2008; Sheffield P E and Landigan P J "Global Climate Change and Children's Health: Threats and Strategies for Prevention" 2011; Currie J and Deschênes O "Children and Climate Change: Introducing the Issue" 2016; Akresh R "Climate Change, Conflict and Children" 2016.

¹²³ *Ibid.*

¹²⁴ Sheridan Bartlett "Understanding the impacts for children of factors related to climate change" 2008.

¹²⁵ See footed 75 above.

Reports (EIRs) and specialist studies such as the SIA to contain a full, reasoned assessment of impacts, alternatives (including the no-go), cumulative effects, mitigation, and monitoring.

118. We submit that the Social Impact Assessment (SIA) and the DESIAR fall materially short of these requirements, and that the Competent Authority cannot lawfully rely on them for decision-making.

Overstatement of Economic Benefits

119. The SIA claims significant economic benefits from exploration through local content and job creation. For example, it estimates a local content spend of R1.75 billion¹²⁶ and makes broad assertions about employment and procurement opportunities.¹²⁷ However:
120. These figures are unsupported and inflated. As The Green Connection and Natural Justice have shown in previous submissions on Block 3B/4B, Capex estimates are often exaggerated and local spend assumptions overstated, with actual South African content closer to 19–25% of total costs.
121. The SIA itself notes that core specialist staff will be brought in with the drilling unit and support vessels, while “skilled personnel” will be “largely recruited internationally”.¹²⁸ This matches independent economic evidence that the majority of offshore exploration jobs are international, with local jobs confined to catering, cleaning, transport, and logistics.
122. The project duration is short, approximately 280 days for seven wells,¹²⁹ meaning that any jobs or procurement benefits will be temporary and minimal.
123. In short, the jobs and economic multipliers included in the SIA are overstated, lack transparency, and fail to account for the short-term nature of exploration.

Understatement of Risks to Livelihoods

124. The SIA downplays risks to fisheries and coastal livelihoods:

Fishing activity

125. The SIA claims the drilling sites are “far offshore” and that fishing activity in the area is limited.¹³⁰ Yet migratory fish stocks, seasonal fishing patterns, and cumulative displacement from multiple offshore concessions are ignored. Small-scale fishers, already vulnerable, face reduced access, increased costs, and risks of contamination, none of which are quantified. To dismiss potential impacts by saying that ‘under normal operations’ fisherfolk are ‘unlikely to venture more than 30km from the coastline’ is deliberately obtuse and purposefully ignoring impacts on migratory fish stocks.
126. Some communities’ livelihoods are wholly dependent on what fish are caught each day, and if exploration activities result in an oil spill and they cannot fish, their catch is radically reduced – resulting in destruction of livelihoods with no alternative means of supporting their families.

¹²⁶ SIA at p.15.

¹²⁷ SIA p.13, 50–52.

¹²⁸ SIA p.13.

¹²⁹ SIA p.10

¹³⁰ SIA p.18.

Tourism in Saldanha Bay Municipality (SBM) and coastal community

127. While the SIA does identify tourism as a key sector in the affected coastal municipalities (including Saldanha Bay), describing the importance of attractions such as Langebaan, Paternoster, and St Helena Bay, and acknowledging risks such as reputational damage, oil spills, and reduced visitor numbers if marine ecosystems are degraded – the assessment of impacts on tourism is superficial:
128. Impacts are described qualitatively, without quantitative modelling of potential losses (visitor numbers, revenue, or employment). The SIA relies on general statements without robust data, rendering the assessment ineffectual.
129. Residual impacts are downplayed: significance ratings are consistently reduced to “low” or “very low” after generic mitigation.¹³¹
130. Cumulative risks are understated: the SIA does not adequately account for how offshore oil and gas exploration, industrial expansion at the Saldanha Bay IDZ, and existing biodiversity stressors interact to threaten the region’s tourism economy.
131. Opportunity costs are ignored: SBM’s own planning documents¹³² identify tourism as the top growth sector for sustainable development, while petroleum scores lowest. The SIA does not weigh these trade-offs.
132. The Saldanha Bay Municipal area is already a critically important driver of the West Coast economy, with tourism playing a central role. The municipality is described as offering “pristine and quintessential seafront towns” that are “widely known and sought after by national and international tourists”.¹³³ A dedicated Tourism Development Plan similarly underscores that coastal and ocean-based ecosystem services in Saldanha Bay generate significant economic, social, and cultural value; value that would be greatly diminished if marine resources are not safeguarded.¹³⁴ This context sets the stage for understanding how offshore drilling could disrupt an fragile economic system that is largely support by tourism, which is already at risk from polluting industrial activities
133. At the national level, tourism contributes around 3.7% of GDP and supports over 770,000 direct jobs, plus hundreds of thousands more indirectly^{135, 136}. While local figures are not as easily available, this national trend reflects tourism’s high employment intensity which is particularly valuable in regions like the West Coast with high unemployment rates. In the West Coast District,

¹³¹ SIA at p. 66–70.

¹³² Socio-Economic Futures report, 2019

¹³³ Saldanha Bay Municipality (2024) *Draft Second (2nd) Review and Amendment of the 5th Generation Integrated Development Plan 2022 – 2027*. Available at: <https://sbm.gov.za/wp-content/uploads/Pages/IDP/Draft-IDP-2024.pdf>

¹³⁴ Conservation South Africa (2022) *Growing A Sustainable Oceans Economy In South Africa, While Expanding Marine Conservation*. Available at: <https://www.conservation.org/docs/default-source/south-africa-documents/saldanha-bay-municipality-oceans-case-study.pdf>

¹³⁵ Green Connection (2023) *Saldanha Bay Municipal area: Economic overview with a focus on Tourism*. Available at: <https://thegreenconnection.org.za/wp-content/uploads/2023/09/Saldanha-Bay-Municipality-Plans-and-Tourism-March2023.pdf>

¹³⁶ Statistics SA, 2021. Report-04-05-07 - Tourism Satellite Account for South Africa, final 2017 and provisional 2018 and 2019, 2019.

Saldanha Bay alone accounted for R12.11 billion in Gross Value Added in 2021, equivalent to approximately 32% of the district's real economic output.¹³⁷ Given that tourism forms a substantial portion of service-sector activity (which includes accommodation, food, retail, and recreational services), any disruption to tourism flows could have a pronounced knock-on effect on local employment and business viability.

134. Tourism in coastal areas is inherently vulnerable to marine disturbances, especially oil spills, increased vessel traffic, and noise pollution. Offshore drilling operations elevate these risks significantly, threatening sectors such as whale and shark watching, recreational diving, boating, and coastal hospitality. The nature-based and marine attractions that draw tourists (e.g., pristine coastline, wildlife viewing, recreational fishing, and unique coastal biodiversity) are precisely the features most vulnerable to disruption from offshore exploration and potential pollution events.
135. The lack of robust assessment of exploration activities and, in future production activities, on tourism is a material omission given that the sector contributes between 16–20% of the local GDP in SBM, the success and continuation of which is heavily reliant on intact coastal ecosystems. The omission is inconsistent with NEMA's requirement to consider the full socio-economic context.

Indigenous Cultural Rights

136. The treatment of Indigenous cultural rights¹³⁸ is superficial. While the report acknowledges the existence of Khoisan heritage, it does not provide any substantive assessment of how offshore drilling and potential oil spills could affect cultural practices, spiritual relationships with the ocean, or intangible heritage.
137. Fishing is not only an economic activity but a cultural heritage for small-scale fishers along the Northern and Western Cape coast. Generational fishing practices, including the use of traditional roeibote (row boats), are central to community identity and social cohesion. The Policy for the Small-Scale Fisheries Sector¹³⁹ was developed after years of litigation precisely to recognise and protect these cultural and heritage rights that were historically denied under apartheid. Communities such as those in Port Nolloth have expressed "*our heritage of fishing is a definitive part of our culture,*" and that offshore industrial encroachment places this at risk.

Weak Socio-Economic Baseline

138. The socio-economic baseline provided¹⁴⁰ is inadequate:
139. It relies on outdated, generalised statistics and fails to reflect the specific realities of fishing-dependent communities.

¹³⁷ Quantec (2022) *Cape Town and the Western Cape – A Leading Regional Economy*. Available at: https://www.wesgro.co.za/uploads/files/Wesgro-Research_West-Coast-District-Fact-Sheet_2022.11_2022-12-05-130504.pdf

¹³⁸ SIA p.27.

¹³⁹ DEFF (2012) *Policy for the Small-Scale Fisheries Sector* Available at: https://www.gov.za/sites/default/files/gcis_document/201409/35455gon474.pdf

¹⁴⁰ SIA p.23–29

140. No gender or youth disaggregation is provided, despite the EIA Regulations requiring assessment of vulnerable groups.¹⁴¹

141. Lüderitz is mentioned as a possible logistics base,¹⁴² but no baseline is presented for that community.

142. Without a reliable baseline, the significance ratings in the SIA are unsound.

Cumulative Impacts

143. The SIA's cumulative impact section¹⁴³ merely lists other activities but dismisses significance. It ignores:

144. Induced impacts such as in-migration, housing and service demand, and social strain—all well documented in the literature on the resource curse and local maldevelopment.

145. The reality that fishing and tourism are already under pressure in SBM, where planetary boundaries for water use, biodiversity loss, and marine ecosystems have already been exceeded.

146. A proper cumulative impact assessment is legally required but has not been undertaken.

Cross-Cutting Economic Concerns

147. A number of factors are not considered in the SIA:

147.1. Resource curse risks: South Africa already suffers from slow growth, high inequality, and maldevelopment in extractive areas (e.g. Rustenburg platinum boom).

147.2. Fiscal risks: African states often see government revenues 63% below forecast; South Africa risks increased debt and credit downgrades.

147.3. Trade risks: EU and UK Carbon Border Adjustment Mechanisms will penalise carbon-intensive exports, undermining South Africa's competitiveness.

148. The SIA and DESEIR are materially inadequate under NEMA and the EIA Regulations. They overstate benefits, understate harms, and fail to assess cumulative or distributional impacts.

149. The Organisations request that the Competent Authority:

149.1. Refuse the application; or at minimum, require a full resubmission of the SIA/EIR that:

149.2. Reassesses socio-economic baselines with participatory, disaggregated data;

149.3. Transparently models economic benefits and risks, including transition and stranded-asset risks;

149.4. Includes cumulative impacts on fisheries, tourism, and biodiversity;

149.5. Provides enforceable mitigation and monitoring commitments;

¹⁴¹ SIA p.16–17.

¹⁴² SIA p.13.

¹⁴³ SIA p.69–70.

- 149.6. Re-runs public participation to meet *Sustaining the Wild Coast* standards.
- 149.7. Proceeding to authorisation on the basis of this SIA would be unlawful and irrational.

F. NO-GO ALTERNATIVE

150. The DESIAR contains very little assessment of the alternative of not implementing the activity. NEMA requires that the assessment must include an investigation into the potential consequences or impacts of the alternatives to the activity on the environment and assessment of the significance of those potential consequences or impacts, including the option of not implementing the activity. The EIA Regulations further require that the assessment of the no-go option includes a description of the environmental attributes, an assessment of need and desirability, an assessment of the positive and negative impacts of the no-go option.
151. However, the assessment of the no-go alternative is cursory, designed to skew the results in favour of the proposed Project.
152. We request that a more rigorous and detailed assessment of the no-go alternative be undertaken, particularly in relation to the risks that will not be incurred should the project not be authorised.

G. CUMULATIVE IMPACTS

Cumulative climate impacts

153. The expansion of oil and gas drilling operations in South Africa will have predictable and dire climate change impacts, particularly should these projects move to production. It is imperative for decision-makers to understand the worst-case cumulative greenhouse gas (GHG) implications of these projects should they proceed to production in order to assess whether the vast expansion of oil and gas production is consistent with South Africa's obligations to prevent climate harms, as recently clarified by the ICJ Advisory Opinion.
154. The proposed drilling activities, if additional commercially viable resources are identified and developed through to production phase, will inevitably add to South Africa's overall GHG emissions. As such, climate change a reasonably foreseeable future impact especially in combination with impacts arising from similar offshore oil and gas exploration and production activities. The cumulative impacts of such GHG emissions need to be identified and assessed. This is not done in the DESIAE. In a country where effectively no oil and gas is being produced, the introduction of these many projects could have an outstanding influence on South Africa's carbon budget, potentially far exceeding its Nationally Determined Contribution (NDC) targets. There is no adequate reason for why this type of cumulative GHG assessment was not done, and approving each project without this cumulative impact assessment is unreasonable and contrary to the requirements of NEMA.

Cumulative oil spill and marine impacts

155. Despite the high volume of past, current, and potentially future oil and gas exploration activities in the region, the DESIAR fails to comprehensively assess the cumulative marine impacts of the project in conjunction with other activity the area and does not assess all “past, present and reasonably foreseeable future developments or impacts”. It does not assess in detail the impacts of potentially multiple overlapping and concurrent projects taking place.
156. Furthermore, the ecosystem impacts of Namibian offshore activities have not been considered.
157. The proposed exploration activities are likely to lead to full-scale production activities, all of which would contribute great risk to the marine environment. Similarly, it is reasonably foreseeable that proposed or approved seismic surveys (TGS Orange Basin Reconnaissance Permit); exploration (Deep Water Orange Basin Licence Block 12/3/343; TotalEnergies EP South Africa Block 567; Sezigyn ER340; PEL39 in Namibian waters); and production (Sunbird and PetroSA Block 2A) could contribute, along with the proposed exploration, to additive stressors on marine life in the region. The compounding effects of all these projects on the marine environment were not fully evaluated in the DESIAR.

H. INTEGRATED COASTAL MANAGEMENT

158. Section 63 of the National Environmental Management: Integrated Coastal Management Act, 24 of 2008 (NEM:ICMA) sets out various factors to be considered in a DESIAR for coastal activities.
159. In *The Green Connection*, the court explains the consideration of the NEM:ICMA factors, as follows:
- “[114] Consideration of the “*interests of the whole community*” is a concept unique to ICMA. It refers to the collective interests of the community as determined by: (a) prioritising the collective interests in coastal public property of all persons living in South Africa of the interests of any particular group; (b) adopting a long-term perspective the takes into account the interests of future generations in inheriting coastal public property characterised by healthy and productive ecosystems and economic activities that are ecologically and socially sustainable; and (c) taking into account the interests of other living organisms that are dependent on the coastal environment.”
- “[122] As the applicants point out, ICMA introduces concepts which are not present in NEMA or other aspects of environmental law, by conferring a special legal status on coastal public property, which afforded the environment a particularly high level of protection. It expressly provides that the State holds the coastal public property in trust for current and future generations. It creates the concept of the interests of the whole community, which specifically recognises the need to take into account the interests of other living organisms which are dependent on the coastal environment. As such, ICMA’s requirements cannot be satisfied by generic consideration of NEMA.”
160. The DESIAR deals with the NEM:ICMA factors at paragraph 2.3.1.7 with reference to various other sections in the report.

160.1. In relation to past compliance with similar authorisations, the DESIAR states that the TEEPSA has undertaken similar work in Block 11B/12B and “has demonstrated past compliance”, and that closure audits were conducted. We request copies of environmental audit reports for drilling in Block 11B/12B.

160.2. In assessing whether the activity is inconsistent with the objective of conserving and enhancing coastal public property for the benefit of present and future generations, it is stated:

“The EIA Report has considered the potential impact of the proposed project on coastal public property and the coastal protection zone by considering the extent to which the offshore marine environment and the coast may be impacted as a result of the proposed project (normal operations and unplanned events). The overall findings for normal operations are presented in Section 8.0 with most impacts being deemed of being generally low significance and not deemed to be not mutually exclusive with conservation of the coastal public property or the purpose for which a coastal protection zone is established as set out in Section 17”

However, no real attempt is made to address the question.

161. In relation to the assessment of the interests of the whole community, the DESIAR sets out:

“The potential impacts and considerations of the whole community will be discussed throughout this EIA Report, including in the sections on cultural heritage, marine ecology and socio-economic impacts. The need and desirability is presented in Chapter 10.0. All of these factors will be considered and assessed holistically to confirm that the proposed project is in the interests of the whole community. Chapter 4 details the public participation process and activities undertaken to notify and engage with communities within the Project’s Area of Influence.”

162. This assessment, too, is cursory and inadequate.

163. Similarly to the Block 5/6/7 case, the DESIAR does not attempt to explain findings or assessments relating to: whether coastal public property would be affected by the proposed project; whether the proposed project is inconsistent with the objective of conserving and enhancing coastal public property for the benefit of current and future generations; or whether the proposed project would be contrary to the interests of the whole community.

I. PUBLIC PARTICIPATION

164. The DESIAR’s assessment as it relates to public participation for the proposed Project is legally defective. The defects are not technicalities, they are material, substantive and predictable given the project’s geographic scope, the nature of the affected communities (small-scale fishers and coastal communities), and the real-world barriers those communities face in accessing online materials or attending meetings held at conventional times and places.

165. The law requires public participation that is meaningful, substantive, accessible and tailored. The documents prepared by the environmental assessment practitioner show an over-reliance on remote, passive and “on request” measures, limited proactive outreach to working fishers, limited

provision of the full report in locally accessible formats and locations, and focus-group and meeting formats that produced very low attendance from directly affected groups.

166. The DESIAR indicates non-compliance with the Constitution, the National Environmental Management Act, the Environmental Impact Assessment Regulations of 2014 (as amended), the Departmental public participation guideline and other statutory instruments that govern coastal and petroleum consultation.
167. Key documentary information in the DESIAR and its appendices include, among other things, that there are 2 732 entries on the project interested-and-affected-parties database but very low engagement from the most directly affected groups at targeted focus meetings, that public open days were mostly scheduled in afternoon hours during weekdays, that specialist briefings and video materials were primarily uploaded to the project website or “screened on request” rather than actively delivered to small scale fishers at harbours, and that the full technical report is available in a limited number of libraries rather than in formats and venues that the most affected persons can reasonably access.
168. Meaningful public participation is not satisfied by publication of a document and the bare offer of a comment channel. The regulations and the national guideline require a process that in substance gives affected people the ability to understand complex technical material, to engage with specialists, to raise issues and to have those issues recorded and carefully considered. That requires the environmental assessment practitioner and the Applicant to design outreach that is appropriate to the conditions of the affected people by performing actions such as holding meetings at times and in places accessible to small-scale fishers, providing the full technical reports (not only short summaries) in local languages or in accessible audio/visual formats, posting hard copies where fishers, harbour users and small businesses actually go, providing facilitation and translation at meetings and using proactive, repeated outreach methods rather than one-off notices or “materials on request”. The guideline explicitly anticipates the need for alternative methods to accommodate illiteracy, disability and other disadvantages. In short, “reasonable opportunity to comment” becomes a fact-sensitive legal test that looks at whether participants could, in reality, engage.
169. The SIA notes reliance on “desktop data” and prior engagements,¹⁴⁴ but this cannot substitute for direct consultation with small-scale fishers, women in coastal economies, and Indigenous communities.
170. The *Sustaining the Wild Coast* judgment requires culturally competent and accessible engagement, including plain-language materials and fisher-appropriate venues and times. The process here falls well short.
171. Across impact categories, the SIA applies automatic downgrading after mitigation¹⁴⁵ without explaining thresholds or residual uncertainty. Mitigation is generic (“prioritise local labour”) and unenforceable.

¹⁴⁴ SIA p.22.

¹⁴⁵ SIA p.47–72.

172. Appendix 3 requires specific, measurable mitigation and monitoring commitments with responsible parties and indicators. This requirement is not met.

Project information showing material shortfalls in public participation

173. The DESIAR and its appendices indicate deficiencies which, when tested against the legal requirement, show material non-compliance:

174. The project placed the DESIAR and the environmental management programme primarily on the consultant's website and a "data-free" website and provided hard copies at a limited number of public libraries and municipal offices. A non-technical summary was produced in four languages and audio files were made available, but the full technical report is not presented in translated or easily accessible forms at harbours or community centres beyond a limited set of libraries. The EIA says hard copies are located at named libraries and municipal offices. What the Environmental Assessment Practitioner and Applicant did not properly consider was that like the small-scale fishers' work schedules, libraries and municipal offices are also only opened during office hours which would make attendance of meetings impossible for many affected persons who can only attend earlier in the mornings or later in the evenings. This, compounded with the large number of pages and vast information that needs to be engaged with in the project documents, means that public participation could not be substantial or meaningful as much time is required for affected persons to properly engage with the information.

175. The meetings held with interested and affected persons consisted of a mix of eleven weekday public open days (largely scheduled in the afternoon), virtual meetings and two focus-group meetings that were held virtually. The focus groups, which were targeted at the most directly affected groups (commercial fishing associations, small-scale fishers' cooperatives and traditional authorities), show extremely low attendance in practice. The record shows that one focus meeting invited 59 people and only 3 attended, and another focus meeting invited 86 people and only 3 attended. Those attendance figures are recorded in the EIA itself. This demonstrates that the design and delivery of outreach did not produce meaningful engagement with the groups most directly affected. The public open days employed recorded presentations that were screened on request and online video materials were uploaded to the project website. While these are useful supplementary measures, they are not substitutes for active in-person facilitation at harbours and landing sites or in-vessel briefings for small-scale fishers who spend long hours at sea and who typically cannot access online platforms during working hours.

176. The DESIAR confirms that recorded presentations were screened on request and that videos were uploaded to the website. The assessment notes that the project's indirect area of influence includes coastal communities from Cape Town to Port Nolloth and lists small-scale fishing cooperatives specifically as stakeholders, but there is little evidence of engaged, repeated, targeted outreach at harbours, at landing sites or via in-person sessions matched to fishers' schedules, for example, early morning or evening sessions that would permit attending before or after fishing trips. The DESIAR itself recognises that the project will affect coastal communities and small-scale fishers, but the record shows standard public open days and an over-reliance on online and library access. To register interested and affected parties with a database that lists 2 732 registered entries indicates a large registration list, however, it does not by itself show that the many persons and groups on the list were given a realistic, effective chance to engage with the

technical material and receive tailored assistance. The project documents indicate that among small-scale fishers, there was little to no attendance from members of small-scale fishing cooperatives. The very low participation rate in targeted focus meetings and the pattern of open-day scheduling creates a reasonable inference that the statutory test of “reasonable opportunity to comment” was not satisfied for the most vulnerable or directly affected groups.

177. The DESIAR itself shows the number of registered parties and the schedule of outreach. An undertaking under oath by the environmental assessment practitioner that the inclusion of comments and inputs from stakeholders and interested and affected parties is correct and complete, where the participation process has not been properly designed to reach the persons most affected, indicates that the sworn affirmation is undermined. It is impossible for the EAP to truthfully assert that the process has included those voices if the design and outcome show that the people at risk were never effectively engaged. The report includes that sworn undertaking.

Failure to provide a reasonable opportunity to comment (Environmental Impact Assessment Regulations of 2014).

178. Public participation regulations require that the person conducting the public participation process ensure information containing all relevant facts is made available and that participation is facilitated in such a manner that all potential and/or registered interested and affected parties are provided with a reasonable opportunity to comment. A reasonable opportunity is not a standardized single formula, rather it must be measured against the conditions of the affected people and the scale and complexity of the proposed activity. For a large, deep-water offshore project with potential trans-provincial impacts on small-scale fishing livelihoods, the bare minimum of posting a draft report online and in a small number of libraries while holding a handful of weekday afternoon open days and virtual sessions is plainly insufficient where the groups most threatened have distinct access-barriers and work schedules.
179. Public participation regulations further require the use of reasonable alternative methods to accommodate illiteracy, disability and other disadvantages. The EIA’s measures relied on passive and electronic channels and screening on request rather than affirmative, place-based facilitation at harbours and landing sites. The focus group results demonstrate that such passive measures did not reach the key groups. These failures mean the statutory test is not met. The national guideline instructs that full, understandable and culturally appropriate information must be provided and that the public participation process must be tailored to the needs of marginalised groups. The EIA produced a non-technical summary in multiple languages and audio files, which is positive, but that alone does not discharge the duty to make the substantive technical material accessible. Small-scale fishers need access to the specialist fisheries modelling, drilling discharge modelling and worst-case spill modelling because those technical details directly inform their livelihoods and safety.
180. The Project documents are not shown to have been taken to landing sites as full, explained hard copies, nor were repeated facilitated sessions held in the early mornings or evenings to reach small scale fishers. Producing a summary is not a substitute for providing access to the technical evidence that will determine whether the activity may be authorised. The guideline requires more.

181. The decision to authorise, if taken without meaningful input from the people whose livelihoods and environment will be affected, would be procedurally unfair. The Promotion of Administrative Justice Act requires procedural fairness for administrative decisions that materially and adversely affect rights. A decision that rests upon a process which effectively excluded the voices of the most affected persons will be susceptible to review and invalidation because it breaches the rights to fair administrative action and to the equality and dignity protected by the Constitution. The documented outreach deficiencies create a reasonable basis to conclude that any authorisation would be the product of procedurally unfair administrative action.
182. NEM:ICMA requires public participation and equitable access to coastal benefits. The DESIAR's record of outreach does not show adequate, place-based engagement with coastal communities so as to secure equitable access to coastal resources and to inform those communities of potentially irreversible decisions about offshore drilling that could impair coastal livelihoods.
183. Failure to comply with the public participation principles in the National Environmental Management Act. The National Environmental Management Act does not merely encourage public participation as a procedural nicety, it embeds participation as a guiding principle of environmental governance. Section 2(4)(f) of the Act requires that the participation of all interested and affected parties in environmental governance be promoted, and that such participation must be inclusive, equitable, and give special consideration to the needs, interests and values of vulnerable and disadvantaged groups. Section 2(4)(g) further provides that decisions must take into account the social, economic and cultural interests of all communities, and that those who are likely to be most affected by environmental decisions must be placed at the centre of the process. Crucially, section 2(4)(k) emphasises that public participation can only be meaningful if people have the knowledge, capacity and means to exercise their rights effectively. This imposes a proactive duty on the Applicant and the environmental assessment practitioner to ensure that communities are not simply notified, but are actively empowered to understand highly technical reports, ask informed questions, and contribute their views in a way that can shape the outcome of the decision. In the present matter, the reliance on online portals, library deposits, and poorly attended weekday sessions falls far short of this statutory mandate. Fishers who spend long days at sea, and who often have limited literacy or internet access, were not provided with the necessary means or knowledge to participate in a substantive manner. By failing to design a process that enabled these disadvantaged groups to be genuinely included, the project has not complied with the core principles of the National Environmental Management Act, which could render the process unlawful.
184. Public participation was a statutory precondition to taking a lawful decision. The statutes and regulations require meaningful and substantive public participation before environmental authorisation is granted. Where that condition has not been met, there is no lawful basis on which the competent authority can grant an authorisation. Granting authorisation despite material non-compliance would be unlawful and subject to judicial review. The defect is material. The project threatens livelihoods of small-scale fishers and may affect coastal biological and cultural resources. The EIA's outreach record shows the groups most directly affected were not given a real, tailored opportunity to engage with the full technical material. Therefore, the deficiency goes to the heart of the process and cannot be characterised as a minor or curable irregularity.

185. The sworn EAP declaration is undermined. The environmental assessment practitioner's sworn undertaking that comments and inputs from stakeholders have been included is rendered unreliable by the failure to carry out meaningful participation with the most affected persons. That undermines the integrity of the whole EIA report and the decision-making process.
186. On this basis we request that the competent authority refuse the environmental authorisation. If the competent authority is nonetheless minded to contemplate any lesser remedy (such as remitting the matter to the Applicant for supplemental engagement), The Green Connection and Natural Justice object. The law requires proactive, adequate participation before the decision, post-decision remedies are not an acceptable substitute and would unfairly prejudice coastal communities whose rights are at risk. If the authority insists on any alternative approach, then the authority must require and supervise a re-run of the public participation process to meet the following minimum requirements before any decision is reconsidered:
187. Full, place-based outreach at harbour and landing sites, including early morning and evening sessions timed to small scale fishers' schedules, and facilitated sessions with translation into the languages used by those communities.
188. Evidence of attendance should be recorded with names, addresses and affiliations and submitted to the competent authority.
189. Provision of substantive technical materials in accessible formats such as hard copies of the full technical report (not only the non-technical summary), at harbour offices and community halls and other areas commonly frequented by interested and affected persons.
190. Audio versions of the entire technical report for those who cannot read.
191. Topical briefings on fisheries modelling and drilling discharge modelling in plain language with specialist facilitators present.
192. Targeted direct invitations, with evidence of delivery, to small-scale fishing cooperatives, harbour user groups and commercial and recreational fishers, accompanied by transport where necessary and meetings scheduled to suit fishers' working times.
193. The EIA's record of low attendance at focus groups (3 attendees from 59 invited; 3 attendees from 86 invited) shows that more targeted measures must be required.
194. A longer, clearly publicised comment period that takes account of the time required for community groups to meet and prepare considered submissions.
195. Confirmation that the competent authority will have access to the full comments and responses in advance of making any decision. The regulations require proof that comments have been recorded and appended to the final report.
196. Independent monitoring of the consultation process by an agreed impartial observer (for example a civil society organisation or an independent expert appointed with the consent of community organisations) whose report must be submitted to the competent authority before any decision is made. The purpose would be to verify that the outreach has actually taken place and reached the most affected people.

197. If the competent authority refuses the application on these grounds, that refusal will uphold constitutional and statutory rights and avoid predictable litigation and delay resulting from an unlawful decision. If the authority grants the authorisation despite these defects, the authorisation will be vulnerable to review and setting aside on the grounds explained above.