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**CULTURAL HERITAGE IMPACT ASSESSMENT FOR A
PROPOSED SPECULATIVE 3D SEISMIC SURVEY IN
THE ALGOA/OUTENIQUA BASINS OFF THE
SOUTHEAST COAST, SOUTH AFRICA**

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Photograph of Healer-Diviner by Francois du Plessis, Eastern Cape Province, November 2021.

EXECUTIVE SUMMARY

The following document provides a Cultural Heritage Impact Assessment (CHIA) in relation to a Reconnaissance Permit application by CGG Services SAS (CGG) for a three-dimensional (3D) seismic survey in the Algoa/Outeniqua Basin. On 23 January 2023, the Petroleum Agency SA (PASA) accepted a Reconnaissance Permit Application submitted by CGG in terms of Section 74 of the Mineral and Petroleum Resources Development Act (No. 28 of 2002; MPRDA). The application provides for the undertaking of a multi-client speculative three dimensional (3D) seismic survey in the Algoa/Outeniqua Basin off the Southeast Coast of South Africa. The proposed survey area would be up to 9 000 km² in extent within a 12 750 km² identified area of interest. The area of interest is located roughly between Gqeberha (previously Port Elizabeth) and a point approximately 120 km southeast of Plettenberg Bay, ranging between 40 km and 120 km from the coast in water depths between 200 m and beyond 3 000 m. Actual survey commencement would ultimately depend on a permit award date and the availability of a survey vessel. It is currently anticipated that the survey would take between four and five months to complete.

The CHIA presented here is informed by anthropological field research conducted from October 2020 to November 2021, and more recent field research conducted in April-May 2022. Part of the scope of the research is to investigate human cultural heritage and religious connections to the ocean and coasts, specifically Intangible Cultural Heritage (ICH) uses and how such practices and beliefs may be impacted by the proposed 3D seismic survey. Field research was conducted in selected sites in the area of interest from Knysna to Gqeberha (formerly Port Elizabeth). A multigenerational and multilingual team of South African and foreign national researchers, primarily educated in the social and human sciences, engaged local coastal participants on the cultural and social meaning of the sea for them, their memories of the sea, their uses of the sea and coast and what it would mean to them if offshore 3D seismic surveys were to be implemented in the Exclusive Economic Zone of South Africa.

The key finding of the CHIA is that while the identified receptors of tangible and intangible cultural heritage are highly sensitive prior to mitigation, the research suggests that there may be stakeholder groups that categorically oppose the 3D seismic survey, even if similar surveys have been conducted in the area of interest before. This means that the sensitivity of the identified receptors will only reduce to medium after mitigation. Furthermore, given the importance of cultural heritage to South Africans, it is strongly advised that CGG undertake a rigorous communication and participation campaign prior to and during the operations period, to ensure (even if difficult), full community participation, as well as stakeholder engagement to provide information to communities so that people understand the operations process and can provide inputs. The areas researched offer pristine ecologies as well as sites of intangible cultural heritage along the South Cape Coast and in the Eastern Cape Province.

ACRONYMS AND ABBREVIATIONS

Areas Beyond National Jurisdiction	ABNJ
Areas of Interest	AOI
Cultural Heritage Impact Assessment	CHIA
UN Convention on Biological Diversity	CBD
Exclusive Economic Zone	EEZ
Indigenous Knowledge	IK
Indigenous Knowledge Systems	IKS
Intangible Cultural Heritage	ICH
Marine Intangible Cultural Heritage	MICH
Marine Protected Areas	MPAs
National Environment Management Act	NEMA
National Environment Management Act: Integrated Coastal Management	NEMA: ICM
National Environment Management: Protected Areas Act	NEMA: PAA
National Heritage Resources Act	NHRA
National Indigenous Knowledge Systems Office	NIKSO
Polycyclic Aromatic Hydrocarbons	PAH
Small Scale Fishers	SSF
Tangible Heritage	TH
Un Convention on The Law Of The Sea	UNCLOS
Underwater Cultural Heritage	UCH
UN Convention on Elimination Of All Forms Of Discrimination Against Women	CEDAW
Un Declaration on The Rights Of Indigenous Peoples	UNDRIP
Un Office Of the High Commissioner For Human Rights	OHCHR
World Heritage Sites	WHS

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DECLARATION

I, Prof MJR Boswell, declare that –

I am not conducting any work or activity for CGG or SLR Consulting other than the Cultural Heritage Impact Assessment (CHIA) presented in this document. I have prepared the document in an objective manner, even if this results in views and findings that are not favourable for the client. No part of this report may be copied/transferred/cited without my express permission, except in relation to the Basic Assessment conducted by SLR Consulting on behalf of CGG.

- I declare that there are no circumstances that may compromise my objectivity in performing such work,

- I have the required expertise in conducting the specialist report, a copy of Curriculum Vitae (CV) is attached.

-I will comply with the relevant Heritage Legislation, the National Heritage Resources Act no. 25 of 1999, and

- I have not, and will not engage in, conflicting interests in the undertaking of the activity;

- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;

- All the particulars furnished by me in this declaration are true and correct.

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1. SCOPE OF THE WORK

Heritage is both legacy and living cultural practice. As sentient beings, humans ‘produce’ culture and cultural practices, doing so within, and in relation to socioeconomic and ecologically defined settings. In other words, cultural production does not happen in a vacuum. Human groups and individuals draw on their physical and often ecological setting to inspire and advance processes of culture ‘making’. Analysing the importance of marine intangible cultural heritage, it is stated that:

By the end of the 21st Century, it is estimated that up to 500 million people will be living at the coast, an increase of 300 million from the beginning of the Century.¹ Increasing human habitation at the coast increases impacts on natural resources including the sea. As noted in this report however, impacts are also possible from offshore 3D seismic surveys. It is for this reason that a Cultural Heritage Impact Assessment (CHIA) has been requested for areas adjacent to CGG Services SAS’s (CGG) Survey Area of Interest (AOI) in the Algoa/Outeniqua Basin.²

South Africa is a culturally diverse country of some 60 million people. Since the advent of democracy in 1994, its cultural diversity has ‘increased’, due to the immigration of peoples from nearby African countries. The reconsideration of identity by those racially classified under apartheid is also contributing to the increased dynamism of identity and cultural diversity. Furthermore, the democratisation of society has resulted in South Africans being able to express multiple identities in the course of their lives. This means that the CHIA presented must and does consider a diversity of cultural heritage engagements with the ocean and coast in the area of interest.

Globally, cultural heritage is said to inform morality, sociality, and biocultural relations. In heritage scholarship and conservation practice, a distinction is made between cultural and natural heritage. Heritage is also classified as either tangible or intangible. Tangible heritage includes sites, monuments, artifacts, and objects of cultural value. Intangible heritage consists

¹ World Oceans Review. 2010. *Living with the Oceans: A Report on the State of the World’s Oceans*. <https://worldoceanreview.com/en/wor-1/coasts/living-in-coastal-areas/#:~:text=At%20a%20rough%20estimate%20more,to%20400%20to%20500%20million>. Accessed 25/01/2020.

² The field research presented in this CHIA draws on NRF funded research Grant UID 129962. The analyses of the cultural valuation of the oceans can be partly attributed to secondary data analysis conducted for NRF Grant UID 125455 Ocean Account Framework and to biocultural heritage research funded by the Algoa bay of Practice UID Grant 110612. This report is therefore considered to be a technical, commissioned report for these NRF Grants.

of folklore, beliefs, values, rituals, and practices related to culture. Tangible and intangible heritage are not always divisible and, natural and cultural heritage may overlap. Heritage is also contested, presenting challenges to heritage management authorities.

Since the advent of democracy in 1994, the South African government has sought to identify, conserve, and manage heritage for both present and future generations. As recently noted,³ the South African Bill of Rights Chapter 2(3), encourages the state to protect South Africans' cultural and religious rights. Via the National Heritage Resources Act 25 of 1999 (NHRA), government also seeks to support the identification and conservation of heritage. Furthermore, South Africa is party to the Convention Concerning the Protection of the World Cultural and Natural Heritage (1972) (i.e., the World Heritage Convention), and the Convention for the Safeguarding of the Intangible Cultural Heritage (2003).⁴ In 1999, the state promulgated the country's World Heritage Convention Act 49 of 1999, a law to guide the identification and nomination process for World Heritage Sites. The World Heritage Convention Act and ratification of the ICH convention suggest that government is galvanised on multiple levels to conserve both tangible and intangible heritage. In this regard, heritage and its conservation is important to South Africans and the South African government.

The area under consideration by CGG includes sites of archaeological and tangible heritage significance and sites of Intangible Cultural Heritage (ICH) value. It is therefore imperative that the Basic Assessment process being undertaken in terms of the National Environmental Management Act, 1998 (No. 107 of 1998; NEMA) includes a cultural heritage impact assessment. As evident in online media, there is significant mobilisation against oil and gas surveys and development. There are real concerns that such endeavours will lead to environmental disaster or long-term damage of fragile ecosystems. Moreover, and as indicated (see Figure 1), the proposed survey AOI is located in close proximity to sites where marine fauna spawn and near Marine Protected Areas (MPA). The MPAs in/close to the area of interest are: Port Elizabeth Corals MPA, Tsitsikamma MPA, Sardinia Bay and Addo Elephant MPAs. It is noted by SLR that 'no seismic survey operations would be undertaken in these MPAs', but that the area of interest 'overlap areas mapped as Critical Biodiversity Area 1(CBA1), Critical Biodiversity Area 2 (CBA2) and Ecological Support Area' (Pisces, 2022).

³ Boswell, R. 2023 Under Review. 'Legislating Marine Intangible Cultural Heritage in South Africa.'

⁴ Henceforth referred to as the ICH Convention.

These facts are important, as the MPAs form part of the natural heritage of South Africans and natural and intangible cultural heritages overlap and are often, interdependent.

The scholarship on heritage conservation is instructive and serves to foreground the importance of heritage and the interdependence of tangible, natural and intangible cultural heritage. Heritage as a whole, contributes to human creativity, restoration of dignity, cultural expression and constitutional rights. The scholarship states that,

...There is a very long history of marine intangible cultural heritage through consideration of maritime heritage⁵ and the interdependence of tangible and intangible heritage.⁶ Heritage scholars have long interrogated the uses of heritage,⁷ noting how the poor rarely have their heritages publicly signified⁸ and how important it is to recognise ICH, pluralise pasts.⁹ However, heritage management is not only important to heritage scholars, in the context of global environmental conservation, the conservation of cultural heritage is deemed critical to preserving biodiversity.¹⁰ Thus, conserving ICH and ultimately marine intangible cultural heritage (MICH), is not only important to cultural inclusion and the recognition of cultural rights, it is critical to the conservation of biodiversity *tout court*. In South Africa, intangible cultural heritage conservation would also be key to redressing an unequal past and to foregrounding previously discriminated against indigenous knowledge forms.¹¹

Marine and cultural heritage conservation also realises the Convention on Biological Diversity (CBD) ratified in 1992,¹² which in its preamble notes that state parties remain:

⁵ Wang, J. 2019. 'A review on marine heritage study: Focusing on the relationship between community and marine heritage, the value, conservation and management of marine heritage', *International Journal of Geoheritage and Parks* 7(3): 145-51.

⁶ Bouchenaki, M. 2003. 'The Interdependency of the Tangible and Intangible Cultural Heritage.' The World Heritage Convention: Future Challenges and Possible Lines of Actions European Conference, Roros, Norway, 03 -05 September 2003.

⁷ Smith, L. 2006. *The Uses of Heritage*. Routledge: London.

⁸ Kirshenblatt-Gimblett, B. 2004. 'Intangible Heritage and the Metacultural Production of Heritage.' *Museum International*. 561/2: 52-66.

⁹ Graham, B., Ashworth, G.J. and J.E. Tunbridge, 2007. *Pluralising Pasts: Heritage, Identity and Place in Multicultural Societies*, Pluto Press: London.

¹⁰ Kang Shua, Y. 2019. 'Cultural Heritage Conservation and the Planet', edited by UNESCO in *Asia Conserved III – Lessons Learned from the UNESCO Asia-Pacific Awards for Cultural Heritage Conservation (2010 – 2014)*. United Nations Educational, Scientific and Cultural Organization; Southeast University Press.

¹¹ Boswell, R. 2023 Under Review. 'Legislating Marine Intangible Cultural Heritage in South Africa.'

¹² United Nations Convention on Biological Diversity 1992. <https://www.cbd.int/doc/legal/cbd-en.pdf> accessed 14/04/2022

Conscious of the intrinsic value of biological diversity and of the ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values of biological diversity and its components.

Conscious also of the importance of biological diversity for evolution and for maintaining life sustaining systems of the biosphere,

Affirming that the conservation of biological diversity is a common concern of humankind,

Reaffirming also that States are responsible for conserving their biological diversity and for using their biological resources in a sustainable manner.

Bearing in mind the CBD and the importance of tangible and intangible cultural heritage to the development of South Africans and humankind in general, the CHIA for the Survey AOI in the Algoa/Outeniqua Basin summarises the research findings and discusses the tangible and intangible cultural heritage of sites from Plettenberg Bay to Algoa Bay in the Eastern Cape Province.

The CHIA report draws on fieldwork conducted to describe normal operation impacts, unplanned events impacts and potential cumulative impacts on the sites, as well as limits of acceptable change. The CHIA also provides: the methodology guiding the CHIA (as well as the consultation process undertaken while preparing the specialist report), a note on the duration, date and season of the field research, a summary of the findings, a description of assumptions made (hypotheses) and any uncertainties or gaps in knowledge identified, information regarding the sensitivity of the sites, indication of any areas to be avoided, including buffers, mitigation measures for inclusion in the Basic Assessment Report and Environmental Management Programme (EMPr). The report sets out the aims and objectives of the research, the terms of reference (ToR) for the CHIA and all the elements noted in the EIA Regulations, 2014 (Appendix 6), which sets out specific requirements for specialist reports.

2. LEGISLATIVE CONTEXT

2.1 The United Nations treats culture, a socio-psychological product and process, as a human right and essential element for human wellbeing. The UN Office of the High Commissioner

for Human Rights (OHCHR), defends cultural diversity, stating that, ‘Culture takes diverse forms across time and space. This diversity is embodied in the uniqueness and plurality of the identities of the groups and societies making up humankind’.¹³

2.2 As a source of exchange, innovation and creativity, cultural diversity is as necessary for humankind as biodiversity is for nature. In this sense, it is the common heritage of humanity and should be recognized and affirmed for the benefit of present and future generations.’¹⁴ The UN CBD specifically recognises the intrinsic value of biological diversity, the role of culture in sustaining diversity and the role of state parties in sustainably managing their biological resources. This emphasises the interdependence of natural and cultural (tangible and intangible) heritages.

2.3 Furthermore, the United Nations Education and Science Council (UNESCO) advances the protection of indigenous and cultural rights via the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) and the recognition and protection of World Heritage, both tangible and intangible, cultural and natural.

2.4 South Africa is party to the World Heritage Convention (1972) but not the Convention for the Safeguarding of the Intangible Cultural Heritage (ICH) (2003). In 1999, the South African government promulgated the country’s World Heritage Convention Act (49 of 1999), a law to guide the identification and nomination process for World Heritage Sites. The World Heritage Convention Act suggests that the South African government has pledged to conserve both tangible and intangible heritage.

2.5 In South Africa, the expression of cultural diversity is also protected. Not only is South Africa a member of the UN, it has also ratified UNDRIP, the World Heritage Convention 1972 and the Convention on Elimination of all Forms of Discrimination against Women (CEDAW). And, as noted:¹⁵

The Constitution accords both culture and religion equal recognition and protection.

¹³ OHCHR. N.d. Universal Declaration on Cultural Diversity. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://adsdatabase.ohchr.org/IssueLibrary/UNESCO%20Universal%20Declaration%20on%20Cultural%20Diversity.pdf accessed 21/05/2022

¹⁴ OHCHR, 2001. Universal Declaration on Cultural Diversity. <https://www.ohchr.org/en/instruments-mechanisms/instruments/universal-declaration-cultural-diversity#:~:text=As%20a%20source%20of%20exchange,of%20present%20and%20future%20generations>. Accessed 11/04/2022.

¹⁵ Moleya, N.I. 2018. ‘Equality for all religions and cultures in the South African legal system’, [https://www.derebus.org.za/equality-for-all-religions-and-cultures-in-the-south-african-legal-system/#:~:text=The%20Constitution%20accords%20both%20culture,culture'%20\(my%20italics\)](https://www.derebus.org.za/equality-for-all-religions-and-cultures-in-the-south-african-legal-system/#:~:text=The%20Constitution%20accords%20both%20culture,culture'%20(my%20italics)). Accessed 11/04/2022.

Section 9(3) of the Constitution prohibits the state from unfairly discriminating against anyone on one or more grounds, including, among others, ‘*religion*, conscience, belief, [and] *culture*’ (my italics).

Section 15(1) bestows everyone the right to ‘freedom of conscience, *religion*, thought, belief and opinion’ (my italics) but excludes culture.

Section 30 confers every person the right to ‘use the language and to participate in the cultural life of their choice’ but only to the extent consistent with the Bill of Rights. The provision excludes religion.

Section 31 entitles persons belonging to a cultural, religious or linguistic community –

(a) to enjoy their *culture*, practise their *religion* and use their language; and
 (b) to form, join and maintain *cultural*, *religious* and linguistic associations and other organs of civil society’ (my italics).

Culture also enjoys special constitutional recognition and protection by virtue of ss 211 and 212 and 181(1)(c) of the Constitution.

2.6 In South Africa, the recognition and protection of cultural heritage flows from the broader concern to safeguard cultural diversity, cultural expression and the natural environment.

2.7 In this regard, the government has promulgated the National Environment Management Act (NEMA) and the related Protected Areas Act 57 of 2003 (NEMA: PAA) and National Environmental Management: Integrated Coastal Management Act of 2008 (ICM). These Acts seek both to safeguard the country’s marine ecological assets and to ensure democratic and public participation in the management of national, natural resources.

2.8 Heritage is equally deemed worthy of protection. In this regard, the South African government has the National Heritage Resources Act 25 of 1999 (NHRA), via which it regularly nominates, inscribes, seeks to protect and safeguard national, regional and provincial heritages.

2.9 While NHRA attends mostly to the management of tangible heritage (TH) (monuments, sites and artefacts), it also seeks to protect Intangible Cultural Heritage (ICH), via the provisions set for Living Heritage.

2.10 NEMA, NEMA: PAA, ICM and NHRA collectively seek to safeguard the integrated coastal cultural and natural heritage of South Africa, as well as local, democratic participation in processes of coastal management.

2.11 The Act recognises that ordinary South Africans are also custodians of heritage, and that heritage management should occur in tandem with local communities and traditional leaders.

Specifically, and in the section considering heritage resources, NHRA notes that,

5(1) (a) Heritage resources have lasting value in their own right and provide evidence of the origins of South African society and as they are valuable, finite, non-renewable and irreplaceable they must be carefully managed to ensure their survival; (b) every generation has a moral responsibility to act as trustee of the national heritage for succeeding generations and the State has an obligation to manage heritage resources in the interests of all South Africans; (c) heritage resources have the capacity to promote reconciliation, understanding and respect, and contribute to the development of a unifying South African identity; and (d) heritage resources management must guard against the use of heritage for sectarian purposes or political gain.

And,

(7) The identification, assessment and management of the heritage resources of South Africa must— (a) take account of all relevant cultural values and indigenous knowledge systems; (b) take account of material or cultural heritage value and involve the least possible alteration or loss of it; (c) promote the use and enjoyment of and access to heritage resources, in a way consistent with their cultural significance and conservation needs; (d) contribute to social and economic development; (e) safeguard the options of present and future generations; and (f) be fully researched, documented and recorded.

2.12 The principles and goals of NHRA are further supported in the Protection, Promotion, Development and Management of Indigenous Knowledge Act 6 of 2019. The Indigenous Knowledge Act serves to assert the human dignity of South Africans, the restoration of indigenous knowledge forms and to educate the public about indigenous knowledge.

2.13 Via the National Indigenous Knowledge Systems Office (NIKSO), government seeks to identify skilled indigenous knowledge practitioners, as well as indigenous knowledge forms to conserve, promote and develop. IKS (Indigenous Knowledge Systems) and IK (Indigenous Knowledge) form a key part of cultural heritage in South Africa, since both were suppressed and marginalised under colonial and apartheid rule.

2.14 A further consideration in this report is that South Africa is party to the UNESCO Convention on the Protection of Underwater Cultural Heritage promulgated in 2001 (UCH

Convention). In this regard, the government is tasked to identify, conserve, nominate and safeguard both TH and ICH that is underwater.

- 2.15 And, as noted in this report, ancestral veneration is important to both First Peoples and indigenes in South Africa. Ancestral veneration forms part of both the tangible and intangible underwater cultural heritage in South Africa's EEZ. Furthermore, the remnants of TH in the form of shipwrecks and other tangible artefacts associated with shipping vessels older than 60 years, also form part of South Africa's TH.
- 2.16 UCH, ICH and TH are managed and conserved by the South African Heritage Resources Agency (SAHRA), and it is only SAHRA that can issue the necessary permits for the removal, alteration and modification of heritages in the national sphere.
- 2.17 Beyond the EEZ, the UN Convention on the Law of the Sea (UNCLOS) applies. There is currently an application in place to extend the territorial sea boundary of South Africa. In October 2002, the South African government began its Extended Continental Shelf Project, in which the Minister of Minerals and Energy directed Petroleum South Africa (PASA) to determine the possibility of extending the country's continental shelf beyond the EEZ. The outcome of this application is pending. Areas Beyond National Jurisdiction (ABNJ) (i.e., areas beyond the 200 nautical mile mark) form part of the Common Heritage of Humankind. In March 2022, the UN High Seas Treaty was agreed upon by state parties. The Treaty concerns the further protection of ABNJ and may impact offshore exploration and surveys, as a primary concern is marine and biodiversity protection, 'resources' potentially affected by offshore operations. As noted earlier, according to the CBD, marine biodiversity and cultural diversity are said to be symbiotic and therefore, any impacts on marine biodiversity may potentially impact cultural diversity and heritage.
- 2.18 Last, heritage is not merely in the past. It is also in the future. That is, where one finds areas of potential heritage interest (such as in the Western Cape Province with its long history of slave and indentured maritime history), there is possibility of discoverable cultural heritage. Developers on land are often required to ensure the presence of archaeologists when land is being excavated for development purposes. At sea, a similar arrangement may be necessary, since it is not clear yet, what might be found that is of archaeological, maritime or cultural heritage interest and value, either within the EEZ or in the ABNJ.
- 2.19 The report acknowledges the cultural diversity of South African society, the geographical mobility of the population, current and potential future considerations of the

oceans and coasts in cultural terms as well as legislation that guides and informs heritage management in the country.

2.20 The report also acknowledges and accepts the legislation of cultural heritage in South Africa and the protection of South Africans' cultural rights, as per the Constitution of the country. The international conventions and national legislations concerning and affecting cultural heritage are further summarized and elaborated upon in Tables noted below.

INTERNATIONAL TREATIES	RELEVANT SECTION OF NOTED TREATY ETCETRA.	APPLICATION TO CULTURE AND CULTURAL HERITAGE
<p>UN Convention on Biological Diversity 1992 (CBD), amended 2022.</p> <p>At the 2022 United Nations Biodiversity Conference of the Parties to the UN Convention on Biological Diversity there was international agreement to protect 30% of land and oceans by 2030 and the adoption of the Kunming-Montreal Global Biodiversity Framework, which supersedes the Strategic Plan for Biodiversity 2011-2020, including the AICHI Targets for the protection of biodiversity.</p>	<p>The Kunming-Montreal Global Target 11</p>	<p>Target 11 applies, recognizing the services that nature (and by implication the protection of biodiversity) provides to human beings, including indigenous peoples. Target 11 enhances and calls for protection of nature for culture.</p>
	<p>National Biodiversity Strategy and Action Plan (NBSAP) necessary for contracting parties to CBD.</p> <p>Strategic Objective 2 of NBSAP 2015-2025</p>	<p>NBSAP Strategic Objective 2 calls for Investments in ecological infrastructure (to which cultural and traditional communities contribute) to enhance resilience and ensure biodiversity benefits to society.</p>
<p>High Ambition Coalition on Biodiversity beyond National Jurisdiction (BBNJ)</p>	<p>UN Convention on the Law of the Sea (UNCLOS), High Seas Treaty</p>	<p>Protection of 30 percent of the Ocean allowing for the Creation of Marine Protected Areas (MPAs) on the High Seas and regulation of mining and other activities in this domain. ABNJ (Areas Beyond National Jurisdiction) were previously beyond the reach of national EEZ. The impact on Cultural Heritage is that ABNJ/High Seas is now also part of the consideration of protected areas. Implementation of the Treaty is not clear yet.</p>
<p>United Nations Covenant on Economic, Social and Cultural Rights (ICESCR) 1976 (ratified by South Africa 2015)</p>	<p>Preamble to ICESCR which states that, 'Recognizing that, in accordance with the Universal Declaration of Human Rights, the ideal of free human beings enjoying freedom from fear and want can only be achieved if conditions are created whereby everyone may enjoy his economic, social and cultural rights, as well as his civil and political rights.'</p> <p>Once South Africa ratified this agreement/covenant in 2015, it had 3 months in which to commence implementation.</p>	<p>The Constitution of South Africa 1996, indicates the cultural rights of South Africans, see Section 31, which states: "Persons belonging to a cultural, religious or linguistic community may not be denied the right, with other members of that community to enjoy their culture, practice their religion and use their language; and to form, join and maintain cultural, religious and linguistic associations and other organs of civil society".</p> <p>But see Article 25 of ICESCR, which states, 'Nothing in the present Covenant shall be interpreted as impairing the inherent right of all peoples to enjoy and <i>utilize fully</i> and freely their natural wealth and resources.' This suggests that the rights of those interested in pursuing the use</p>

INTERNATIONAL TREATIES	RELEVANT SECTION OF NOTED TREATY ETCETRA.	APPLICATION TO CULTURE AND CULTURAL HERITAGE
		of natural resources for economic gain also needs to be considered.
Convention Concerning the Protection of the World Cultural and Natural Heritage 1972	Article 4 and Article 5 set out the obligations, as well as the means to realise the obligations to identify, protect and advance both cultural and natural heritage protection.	South Africa has ratified the World Heritage Convention Act 49 of 1999 but not the Convention for the Safeguarding of the Intangible Cultural Heritage (ICH) 2003 . This means that ICH is not provided for, except in the general context of provisions made for Living Heritage in the National Heritage Resources Act 25 of 1999.
UN Declaration on the Rights of Indigenous Peoples (UNDRIP)		The South African government has ratified the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) (2007). In April 2021 and at the United Nations Permanent Forum on Indigenous Issues , the state further affirmed its commitment to protecting the rights of indigenous peoples. Equally and to conserve the access of future generations to environmental benefits, South Africa has also sought, post 1994, to realise through various laws, the aims of the Convention on Biological Diversity (CBD). This means that it has also pledged to protect biodiversity for the benefit of present and future generations.
UN Convention on Elimination of all Forms of Discrimination against Women (CEDAW)	Foundational Principles which rest on non-discrimination, state obligation to pursue equality and the pursuit of substantive equality	State parties to the UN World Heritage Convention 1972, are required to pay attention to, and note gender dimensions of ICH. Relevant to this Impact Assessment Study is the fact that there are women Small Scale Fishers (SSF) for whom oceanic ICH matter.

Table 1 International Conventions and Treaties relevant to cultural heritage protection.

NATIONAL LEGISLATION		
The Constitution of South Africa 1996	Sections 9(3), 15(1), 30 and 31.	Section 9(3) of the Constitution prohibits the state from unfairly discriminating against anyone on one or more grounds, including, among others, ' <i>religion, conscience, belief, [and] culture</i> ' (my italics). Section 15(1) bestows everyone the right to ' <i>freedom of conscience, religion, thought, belief and opinion</i> ' (my italics) but excludes culture.

		<p>Section 30 confers every person the right to ‘use the language and to participate in the cultural life of their choice’ but only to the extent consistent with the Bill of Rights. The provision excludes religion.</p> <p>Section 31 entitles persons belonging to a cultural, religious or linguistic community –</p> <p>(a) to enjoy their <i>culture</i>, practise their <i>religion</i> and use their language; and</p> <p>(b) to form, join and maintain <i>cultural, religious</i> and linguistic associations and other organs of civil society’ (my italics).</p> <p>Culture also enjoys special constitutional recognition and protection by virtue of ss 211 and 212 and 181(1)(c) of the Constitution.</p>
The National Heritage Resources Act 25 of 1999	General Principles 4	<p>General principle (4): “heritage resources form an important part of the history and beliefs of communities and must be managed in a way that acknowledges the right of affected communities to be consulted and to participate in their management”</p> <p>See also the South African <i>Draft National Policy on Living Heritage</i> (2009) which states the importance of living/intangible cultural heritage to social and economic life, as well as the inseparability of tangible and intangible cultural heritage (2009, page 10).</p>
	Section 5(4), Section 5(7) a, b, c, d & e	<p>Section 5(4) which states: “heritage resources form an important part of the history and beliefs of communities and must be managed in a way that acknowledges the right of affected communities to be consulted and to participate in their management”</p> <p>Section 5(7) subsections (a)-(e) which provide: The identification, assessment and management of the heritage resources of South Africa must-</p> <p>(a) take account of all relevant cultural values and indigenous knowledge systems;</p> <p>(b) take account of material or cultural heritage value and involve the least possible alteration or loss of it;</p> <p>(c) promote the use and enjoyment of and access to heritage resources, in a way consistent with their cultural significance and conservation needs;</p> <p>(d) contribute to social and economic development;</p> <p>(e) safeguard the options of present and future generations.</p>
World Heritage Convention Act 49 of 1999		<p>‘The Act makes provision for: the enforcement and implementation of the World Heritage Convention in South Africa; the recognition and establishment of World Heritage Sites; the establishment of authorities and the granting of additional powers to existing organs of State, among other provisions.’ (Cheadle et al)</p> <p>South Africa has not ratified the Underwater Cultural Heritage Convention 2001 and it has not ratified the</p>

		Convention for the Safeguarding of the Intangible Cultural Heritage 2003. NAHRA (National Heritage Resources Act 25 of 1999, provides limited protection of both these forms of heritage).
The National Environment Act no 107 of 1998	National Environmental Management: Protected Areas Act 57 of 2003. Chapter 4, Management of Protected Areas.	42(2)(a) provide for the harmonisation and integration of the management of cultural heritage resources in the protected area by the management authority. This would apply to the MPAs identified in Tsitsikamma and other identified MPAs in the area of indirect influence.
	National Environmental Management: Integrated Coastal Management Act of 2008. References to Coastal Resources which includes cultural heritage.	Definitions. “coastal resources” means any part of (a) the cultural heritage of the Republic within the coastal zone, including shell middens and traditional fish traps; or (b) the coastal environment that is of actual or potential benefit to humans; Special Management Areas: (3) An area may be declared as a special management area only if environmental, cultural or socio-economic conditions in that area require the introduction of measures which are necessary in order to more effectively - (a) attain the objectives of any coastal management programme in the area; (b) facilitate the management of <i>coastal resources</i> by a local community; (c) promote sustainable livelihoods for a local community; or (d) conserve, protect or enhance coastal ecosystems and biodiversity in the area.

Table 2 National Legislative Context relevant to cultural heritage protection

3. APPROACH TO THE STUDY

3.1 Aim and Objectives

Considering the legislative and sociocultural context, the aims of the Cultural Heritage Assessment (CHIA) are to:

- Engage with the key stakeholder communities within the indirect area of influence to establish the cultural, spiritual and/or religious significance of the ocean and coast to local communities.

- Assess the potential impacts of normal operations and unplanned events on cultural, spiritual, or religious practices – especially as these pertain to tangible and intangible cultural heritage.
- Identify practicable mitigation measures to reduce any negative impacts on tangible/intangible cultural heritage.
- Produce a CHIA that includes information regarding the potential cumulative impacts.

The above-noted objectives are selected so that the research team can show how the proposed project could affect or hinder communities' cultural and intangible cultural heritage or users of the ocean. Relatedly, the objectives of the CHIA are to:

- Conduct primary anthropological research in the stated communities within the indirect area of influence¹⁶ to describe, discuss and analyse the receiving environment, specifically key stakeholders' intangible cultural heritage and the prevalence/frequency/commonality of cultural and spiritual reliance on the sea. The cultural heritage to be assessed includes the heritages of indigenous, autochthonous and recently settled peoples, their spiritual and religious uses of/connections to the sea and coast and their cultural valuation of these assets.
- Utilise both primary and secondary data collected to assess the potential impacts of both normal operations of a seismic survey and unplanned events on the stated variables (culture, spiritual aspects and religion).
- Utilise both primary and secondary data collected as well as the mitigation measures recommended by other specialists, to identify mitigation measures to reduce potential negative impacts on aspects of culture and spiritual/religious uses of the sea and coast.
- Assess Xhosa and/or indigenous and autochthonous ancestral beliefs and ritual practices regarding coastal and deep ocean significance. This includes Khoisan (First Peoples) cultural relations with the sea and coast.
- ICH of settler groups (English/Portuguese/other European descendants) and coastal ICH indicated by Afrikaans speaking peoples.

¹⁶ It is important to note that these areas are also the prime research sites for the PI's NRF funded research in South Africa and therefore, only a few additional questions were asked relating to the impact of seismic survey in these areas. The bulk of the interviews remained focus on the NRF project objectives which are to understand human cultural and heritage connections with the sea and coast in South Africa.

- Gender and generational dimensions of ICH at the coast in the selected sites.

3.2 Terms of Reference:

Terms of Reference identified by SLR for this CHIA are:

- Provide a general description of the local cultural heritage in and around the proposed Reconnaissance Permit area.
- Identify, describe and assess the significance of potential impacts of the proposed speculative 3D seismic survey on the local cultural heritage.
- Identify practicable mitigation measures to reduce any negative impacts and indicate how these could be implemented in the implementation and management of the proposed project.

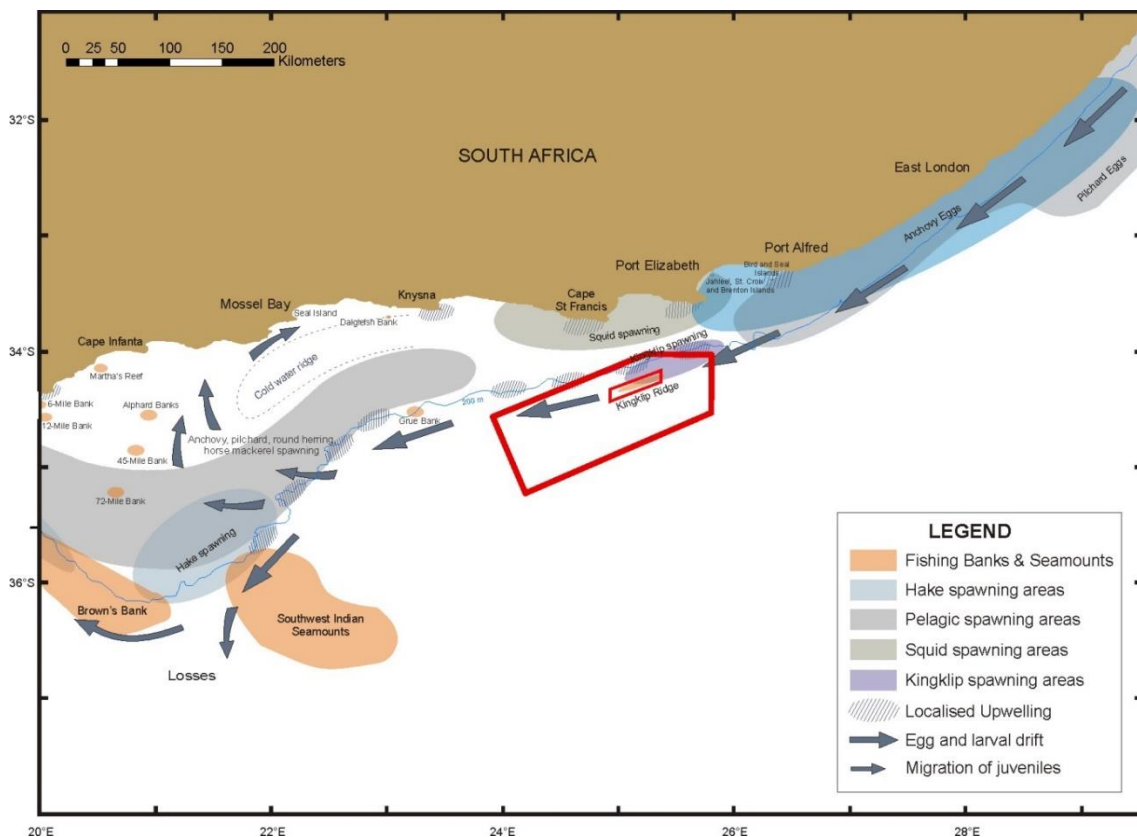


Figure 1 Proposed Survey Area of Interest in the Algoa/Outeniqua Basin

Source: Pisces, 2022

4. SITES, RESEARCH METHODS, LIMITATIONS AND INFORMATION GAPS

Research Sites and Methods

- 4.1 The CHIA considers and respects the principles noted in both the NHRA and the Indigenous Knowledge Act as noted in the section on the Legislative Context. It offers an as comprehensive as possible overview of key research findings on human cultural connection with the ocean and coasts in South Africa. Drawing on selected sites, a multidisciplinary team of qualitative researchers collected qualitative data on coastal cultural heritage from October 2020 to May 2022. The findings draw on primary data (collected since 2020) and secondary data (from 1994 to the present), regarding the spiritual/cultural/religious uses of the sea and coast. In this regard the research conducted and analysed is holistic and inclusive.
- 4.2 In each site, a more or less equal number of women and men were interviewed. The majority of those interviewed are between the ages of 20 to 60. That is, the majority of those interviewed could be classified as either economically active (formally or self-employed), or, that they have the potential to be economically active.
- 4.3 The research team interviewed a wide cross-section of South Africans and some immigrants. South Africans interviewed included the descendants of First Peoples (i.e., Khoisan descendants), as well as Nguni descended peoples, European descendants and those who still classified themselves in racial terms (i.e., white, black African, coloured or Indian).
- 4.4 The research was also generationally diverse. The team interviewed those who consider themselves to be part of a younger generation of South Africans.
- 4.5 Interviewers were multilingual or, where a researcher did not speak the language spoken by the interviewee, a fellow team member would accompany the key researcher to conduct the interview.
- 4.6 The research team itself was generationally and ethnically diverse. The team comprised of foreign nationals, a Khoisan descendant, Sotho, Xhosa, Afrikaans as well as European descendants.
- 4.7 All team members are trained in social sciences research, specifically anthropology and/or sociology. The lead researcher is an anthropologist with more than 20 years of field research experience in national and international coastal contexts.
- 4.8 The duration of the field research undertaken in 2022 was 15 days (including nights). From October 2020 to May 2022, additional field

research was undertaken on the issue of cultural valuation of the ocean and coast in South Africa, of which more than 50 days were focused on the Eastern Cape area inshore of the Survey Area of Interest.

- 4.9 The research team stayed overnight in, or near the sites where field research was conducted. The aim was to ensure possibility for deep and meaningful observation of social and cultural dynamics in the selected locales. Each research day comprised of between 6 to 8 hours of community consultation and interviews. Community consultation involved selecting, accessing and confirming interviewees, the written formal consent communication, the interview and social engagement accompanying each interview.
- 4.10 The present and accepted approach in anthropological fieldwork is that all engagement with local communities is respectful, culturally aware, ethically informed, politically conscious and seeks to do no harm to local communities. The research approach is also self-reflexive, meaning that researchers must reflect and debrief with research partners, their impact on the research process and how they might improve their research praxis in the future.
- 4.11 The research included a diversity of stakeholders, from the descendants of indigenes, specifically Khoisan (Nama and Griqua descendants), as well as those who still define themselves in racial terms in South Africa (Coloureds, whites, Black African and Indian). The research also included interviews with participants and observations in coastal locales, where relevant activities are taking place, such as swimming, surfing, kite surfing, sailing and beach walking; and where there were local businesses and effort to leverage subsistence from the sea (i.e. fishing). The research conducted was also generational and gender defined, and it included immigrants.
- 4.12 Analysis of the data involved consultation of a wide range of secondary sources, such as: archaeological studies and publications detailing tangible heritage at the coast, historical and research studies on Khoisan and Nguni beliefs and ritual practices, research dissertations on the sociocultural and ecological aspects of the sites where fieldwork was conducted, State of the Bay reports, reports regarding national government issuance of fishing quotas and licences, as well as the impacts of these on small-scale fishers (SSF) livelihood and engagement with the sea, multi-use (municipal, tourism, business) plans for the research sites, legislation and international Conventions regarding heritage and indigenous knowledge management, reports and news articles on the impacts of existing industries on the research sites, the recently

produced National Coastal and Marine Spatial Biodiversity Plan (2022), MARPOL 73/78, MARPOL Annexes related to mitigation of oil pollution and recent news regarding the mobilisation of SSF.

4.1 The research team interviewed a wide cross-section of South Africans, including the descendants of First Peoples (i.e., Khoisan descendants, which include descendants of the Korana and Griqua), as well as Nguni descended peoples, European descendants and those who still classified themselves in racial terms (i.e., white, black African, coloured or Indian). In 2021, the South African Cooperative Governance and Traditional Affairs (COGTA) established the Commission on Khoi-San Matters as per the Traditional and Khoi-San Leadership Act, 2019 (Act 3 of 2019) (TKLA).

A purpose of the Commission is to receive applications for the national recognition of Khoi-San communities and leaders and to investigate such applications and make recommendations to the Minister on possible recognition of Khoi-San communities and groups. Notice 802 of 2022, of the TKLA, indicates that application for such recognition only commenced on 30 March 2022. During the research process for this CHIA, there were still some individuals, recognized as chiefs and bona fide leaders in their community, that had yet to be recognized by COGTA. It is noted that the legitimacy of COGTA's request for registration of Khoi-San communities and leaders is contested (i.e., by some Khoisan people who recognize that cultural heritage and identity are political, rather than genetic or biologically determined), the situation is that presently, such groups and communities must apply for national recognition. Thus, consultations with the aforementioned groups, were implemented considering the UNDRIP principle of Free, Prior, Informed Consent (FPIC), as well as the Ethics Clearance requirements for human related research at Nelson Mandela University. The latter specifically and expressly requires written informed consent for each participant involved in the research investigation. Furthermore, and beyond the university ethics requirements, the practice of contemporary anthropology is that all engagement with local communities is respectful, culturally aware, ethically informed, politically conscious and seeks to do no harm to local communities. The research process adhered to both the Nelson Mandela University and disciplinary approach. The latter is also self-reflexive, meaning that researchers must reflect and debrief with research partners, their impact on the research process and how they might improve their research praxis in the future.

- 4.2 Regarding the national and legal status of leaders of the Khoi-San communities, it is noted that due to COGTA efforts to register/publicly recognize locally elected traditional leaders, more communities and traditional leaders may come forth to request consultation once they are registered with the Commission and their national status is established. Engagement with communities and leaders has therefore (and during this time of traditional leadership recognition) been done in good faith. Uppermost in the minds and approach of the research team, has been the importance of consultation and inclusion in the research process. But as noted in this report, set time frames for the completion of the CHIA has meant that only some traditional leaders were reached and that subsequently COGTA registered leaders are not consulted.
- 4.13 Furthermore, the report presented here considers and accepts that there may be Biocultural Community Protocol (BCP) emerging from indigenous communities at this time. The historical (Nineteenth Century/precolonial) distribution of Khoisan peoples is noted in the Figure noted below. This provides a sense of early and general settlement patterns of First Nation peoples in South Africa.

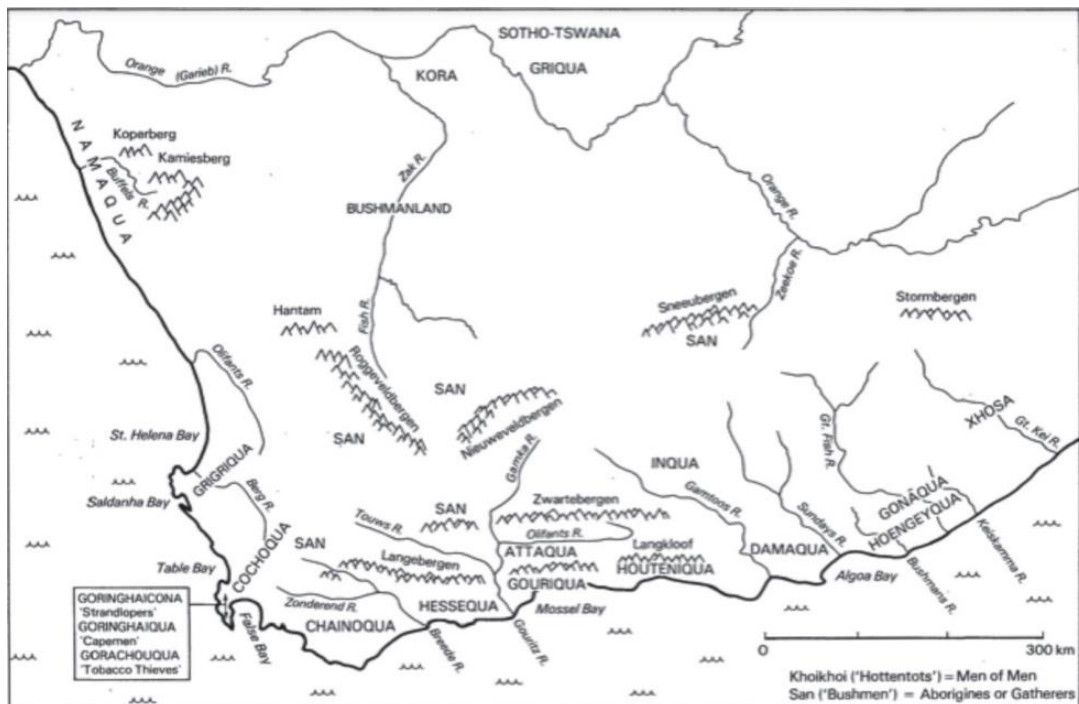


Figure 2 Historical Map (17th- 18th Centuries) of the Cape indicating distribution of Khoi and San descended groups, such as the Namaqua, Chochoqua, Gouriqlua, Gonaqua and Damaqua peoples¹⁷

¹⁷ The Houteniqua/Outeniqua, Damaqua and Gonaqua are associated with the broader Eastern Cape. It is noted that mobility, colonialism and apartheid legislation would have led to the displacement of indigenes from the areas noted above.

4.14 The 2022 field research covered selected field sites where there are line fishermen, crab hunters, chokka fishermen as well as secondary users of these catches: ordinary community members, restaurants and hotels. The time spent in the sites enabled the team to perceive how SSF work with established fishing companies in the Eastern Cape (i.e., Abalobi), how SSF and their families support subsistence in local communities and how the coastal context contributes to varied cultural and leisure uses of the coast and sea. Analysis of the data involved consultation of a wide range of secondary sources, such as: archaeological studies and publications detailing tangible heritage at the coast, historical and research studies on Khoisan and Nguni beliefs and ritual practices, research dissertations on the sociocultural and ecological aspects of the sites where fieldwork was conducted. The PI read reports regarding national government issuance of fishing quotas and licences, as well as the impacts of these on SSF livelihood and engagement with the sea, multi-use (municipal, tourism, business) plans for the research sites, legislation and international Conventions regarding heritage and indigenous knowledge management, reports and news articles on the impacts of existing industries on the research sites, the recently produced *National Coastal and Marine Spatial Biodiversity Plan (2022)*, MARPOL 73/78, MARPOL Annexes related to mitigation of oil pollution and recent news regarding the mobilisation of SSF.

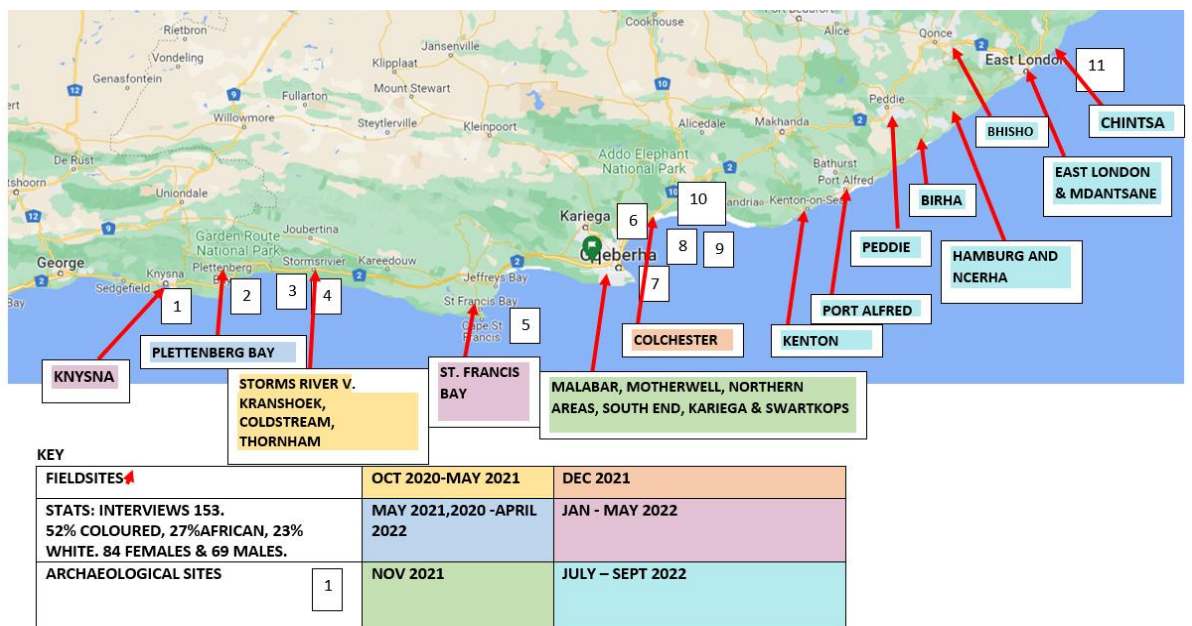


Figure 3 Map Indicating Field Research Sites for CHIA CGG 2022

1.	Goukamma Nature Reserve MPA, Knysna estuary (focal point for human activity at least since the mid-Pleistocene), New Stone Age Localities Near the Knysna Heads
2.	Robberg Nature Reserve MPA, Nelson Bay Cave, Robberg Caves
3.	Tsitsikamma MPA & National Park (shell middens and rock art)
4.	Klassies River archaeological sites
5.	Coastal Shell Middens and Fish Traps (Seal Point, Oyster Bay, Slang River)
6.	Albany, Wilton and Howiesons Poort Caves, Baviaanskloof heritage site
7.	Cape Recife shell middens
8.	Bird Island MPA, Port Elizabeth Corals MPA
9.	Whale Heritage Sites
10.	Colchester Dunes (6000 and 10 000 years' old and rest upon even older, compacted dunes that could date back as many as 100 000 years)
11.	Amathole Marine Protected Area

Table 3 List of Archaeological Sites and Marine Protected Sites of Interest and/or Importance.

Limitations

- 4.3 There were few perceived limitations. The research team lives in the Eastern Cape Province and the bulk of the fieldwork was conducted in this province from October 2020 to May 2022.

Information Gaps

- 4.14 Knowledge gaps in the research are considered to be of low to negligible significance, since the fieldwork canvassed a wide variety of stakeholders and pursued deep ethnography on the cultural valuation of the ocean and coast, as well as ritual activity at the coast.
- 4.15 The significance of the representation gap is considered to be low, given the wide consultation effected during fieldwork.

- 4.16 The significance of the time for research is low to very low since detailed information was obtained from the highly qualitative interviews conducted. The gain was in depth, rather than breadth and for the purposes of this research endeavour, the gain was satisfactory.
- 4.17 The methodology and method for the CHIA for the Survey Area of Interest in the Algoa/Outeniqua Basin draws on several sources: Appendix 6 of EIA Regulations 2014 (as amended) promulgated in terms of Chapter 5 of NEMA and published in Government Notice (GN) No. 982 (as amended); project description and EIA Methodology (which defines the criteria for assessment, as well as descriptors for the sensitivity and magnitude of impact ratings) provided by SLR, other specialist studies as part of the Basic Assessment process and the national government documents on assessment of impact significance, cumulative effects and limits of acceptable change.¹⁸ The assessment protocol uses the ‘balanced’ weighting approach, which considers the cost of the impact to society, bearing in mind the values of local communities and the goals of CGG. The aim is to anticipate future conditions arising from normal operations and unplanned offshore events, as well the sociocultural results arising from such conditions.
- 4.18 In my professional opinion, there is ‘carrying capacity’ for any resource. Breaching this capacity can increase negative impacts on natural assets used in cultural heritage.
- 4.19 Regarding indigenous coastal cultural heritage, there is complex and holistic consideration and valuation of the sea and coast. For the Khoisan (First Peoples) descendants, there is a deep connection with the coast and sea.¹⁹ The Khoisan ancestors were among the first *strandlopers* (beach walkers), and as the DSI- NRF A Rated scientist Dr Curtis Marean describes them, they were the first aquatic hunter gatherers to have established a sustainable livelihood and potential cultural relation with the sea. The issue of both tangible (archaeological cultural heritage) and intangible cultural heritage is especially significant for this block of interest.

¹⁸ Department of Environmental Affairs and Tourism. 2002. *Impact Significance* (Information Series 5). https://www.dffe.gov.za/sites/default/files/docs/series5_impact_significance.pdf accessed 11/04/2022; Department of Environmental Affairs and Tourism. 2004. *Cumulative Effects Assessment* (Information Series 7), https://www.dffe.gov.za/sites/default/files/docs/series7_cumulative_effects_assessment.pdf accessed 11/04/2022.

¹⁹ Boswell, R. and Thornton, J.L. (2021a). ‘Including the Khoisan for a more Inclusive Blue Economy’, *Journal of the Indian Ocean Region* 17 (2) 141-60.

5. DESCRIPTION OF THE BASELINE: CULTURAL HERITAGE ENVIRONMENT

5.1 Definition of Cultural Heritage

- 5.1.1 ICH (Intangible Cultural Heritage) consists of the folklore, ritual practice, beliefs, symbolism, social attachment, as well as associated human sensory engagement with the coast and sea.
- 5.1.2 ICH is also found underwater, as part of the tangible heritage associated with maritime artefacts that remain on the sea floor after a shipwreck for example.
- 5.1.3 In this regard and for the Survey Area of Interest in the Algoa/Outeniqua Basin, there is need to consider terraqueous (territorial and watery) territories which refer to and includes inshore archaeological sites and sites of spiritual significance. These contain 'living' waters that empty out into the sea. These territories are said to be multiply influential, as they contain marine species of subsistence and ecological value, and the waters are incorporated in ritual purposes.
- 5.1.4 South Africa has several World Heritage Sites (WHS) in which the tangible natural and intangible cultural elements are recognised and valued. The government also recognises ICH in its reference to living heritage in the National Heritage Resources Act 25 of 1999.
- 5.1.5 The recognition of ICH is also evident in the SA Constitution.
- 5.1.6 ICH is diversely considered by stakeholder groups situated at the coast, in the different provinces of South Africa. The ICH maintained reflects the cultural diversity of South Africa.
- 5.1.7 ICH and TH (tangible heritage) are contested by stakeholder groups because the practices associated with both reflect the specific cultural interests and values of each group. Despite contestation however, the anthropological research (henceforth referred to as the 'research') revealed that there are shared and often converging values regarding the conservation of the ocean and coasts.
- 5.1.8 ICH is recognized by the First Peoples of South Africa, the various groups defined within the Khoisan collective. This includes the Nama, Griqua/Guriqua and Korana peoples. It is also expressed by Nguni descendants, as well as the descendant groups of Europeans in the country.

5.2 Location of Coastal Tangible and Intangible Cultural Heritages

- 5.2.1 The research found that ICH related to the coast and sea overlaps with immigrant (specifically southern African and Central African) beliefs and ritual practices at the coast.
- 5.2.2 The research also revealed that coastal and oceanic ICH is holistic. It includes a variety of waterways that ultimately lead to the sea, these include streams, rivers, pools, lakes and estuaries. These waterways are described as ‘living’ waters and are believed to play a critical role in spiritual and health management in indigenous (First Peoples and Nguni) groups specifically.
- 5.2.3 The specific beliefs concerning these ‘living’ waters can be summarized as follows:
 - 5.2.3.1 That the waters contain the ancestral spirits of the cultural communities noted.
 - 5.2.3.2 That the waters offer a spiritual domain to which people in the present realm can travel to (intentionally or otherwise) and from which they can return if the correct ritual activities are performed to ensure safe return.
 - 5.2.3.3 That while the lesser waterways such as streams, rivers and pools may contain a community’s specific ancestral spirits, the ocean itself contains the ancestral spirits of the African continent and arguably the ancestral spirits of all humanity.
 - 5.2.3.4 That the ancestral spirits in the ocean reside on the seabed or seafloor.
 - 5.2.3.5 That indigenous peoples should always approach the sea and coast, as well as lesser waterways with reverence and sometimes, fear.
 - 5.2.3.6 That belief in the ancestral world and the place of ancestors in waterways and other ecologically sacred places does not require a relinquishing of belief in an omnipresent God. The ancestors form part of a complex genealogy of which God is the head.
 - 5.2.3.7 That regular, consistent and frequent interaction take place with the coast and sea in order to secure the guidance and benevolence of ancestors, as well as spirits that reside in such living waters.

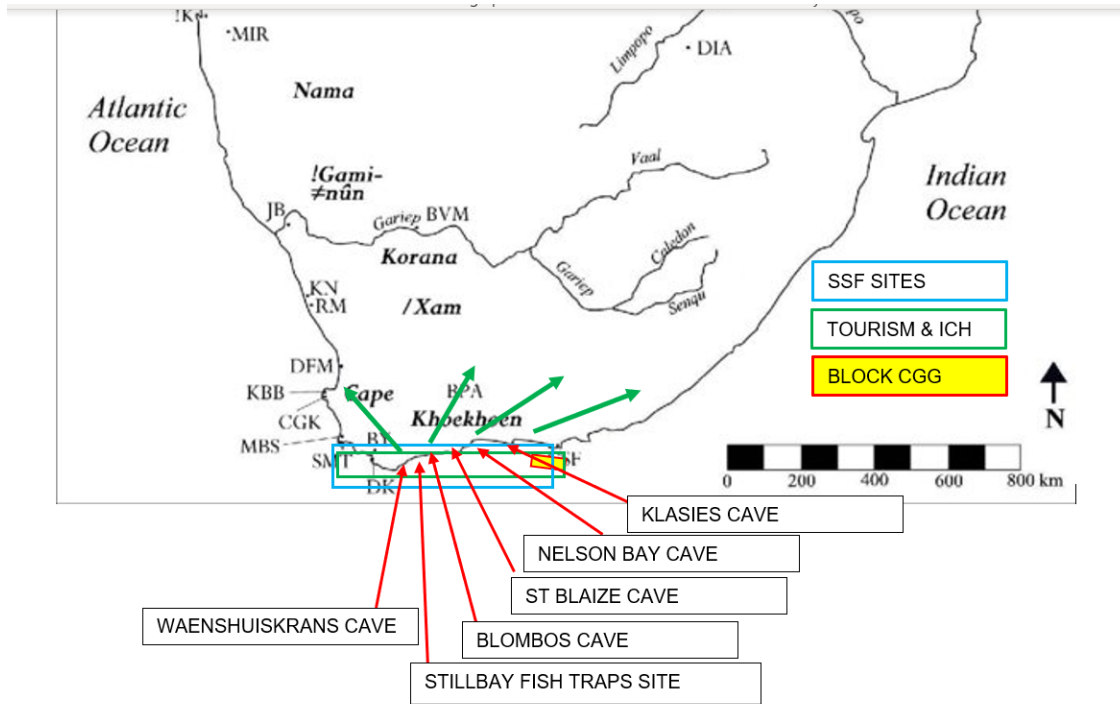


Figure 4 Map of South Africa indicating sites of archaeological importance (abbreviated letters in capitals), coastal caves and mega-midden sites of cultural value in the southern Cape coast and Eastern Cape Province. The map also indicates the area of interest noted as Block CGG in this Figure.

Original Map Source: Mitchell, P. 2014. 'The canine connection II: Dogs and southern African herders', *Southern African Humanities* 26: 10-19. https://www.researchgate.net/publication/287614904_The_canine_connection_II_Dogs_and_southern_African_herders accessed 05/04/2022

5.3 Summary of Research Findings

5.3.1 The coastline, considered part of the area of indirect influence for the Survey Area of Interest in the Algoa/Outeniqua Basin, has rich coastal intangible cultural heritage as well as archaeological (tangible) heritage. These heritages are evident from the south Cape Coast and the Eastern Cape Coast up to St Francis Bay. These heritages were noted and discussed by participants during fieldwork from October 2020 to November 2021²⁰ and again in May 2022. SSF and SSF families displayed high regard of the sea as well as their spiritual and cultural connection with the ocean. The team also found First Peoples' revivals of identity and re-membering of coastal ICH through recently discovered caves, fish trap sites (Stilbaai) and shell middens (Pinnacle point, Blombos Caves and other similar sites). These stories revealed the cultural and ecological

²⁰ During which more than 100 detailed interviews were conducted for NRF funded research.

sensitivity of these coastlines, as well as their cultural value. MPA studies, the reliance of SSF families on these coastlines for subsistence, the role of the coastline in fish spawning, as well as studies of aquatic biodiversity further reveal the intangible cultural heritage of the sites.²¹

- 5.3.2 Secondary data analysis also revealed a rich tangible (and archaeological) coastal heritage along the West Coast of the country and in the south Cape Coast.
- 5.3.3 Indigenous' complex and holistic consideration and valuation of the sea and coast presents a different 'use' metric and valuation of the sea and coast. The ocean is not merely an asset, it is a living organism and integral part of the global ecological system. For these communities, the whole ocean forms part of a cultural complex in which ancestral permission/blessing must be obtained for any development to take place. In this regard, the people interviewed consider the whole ocean to be highly sensitive regardless of industrial or other activities happening inshore.
- 5.3.4 In our research and engaging with people of Khoisan ancestry, we found that, regarding ICH specifically, there are deep First Peoples' relations with the sea and nature. For the First Peoples or Khoisan, humans live in a symbiotic and holistic relationship with the sea. This is a relationship that must be conserved, and it is key to the full development of persons who are part of a larger, critically balanced ecosystem. Khoisan and Nguni peoples regularly and consistently engage with the ocean and nature, drawing on fynbos and coastal plants for healing and using the sea to commune with the ancestral world. For the Xhosa in particular, the ocean seabed is the final resting place of ancient ancestors and there is belief (even among Zimbabwean immigrants) that the sea is living water and has the possibility of healing many physical and spiritual ailments.

Under apartheid many people of colour in South Africa were categorised as Coloured. This denied such peoples expression of their Khoisan ancestry. Since 1994, a Khoisan revival has seen many Coloureds taking the 'liberation walk', to reconnect with their Khoi ancestry and the spirit world denied to them in Christianity and under apartheid. Increasingly and more publicly, both those objectively defined as Coloured and

²¹ Muhl, E-K. and Sowman, M. 2020. 'Rights, Resources, Rezoning and the Challenges of Governance in South Africa's Oldest Marine Protected Area', *Conservation & Society* 18(4): 366-77. Muhl, E-K. nd. 'Tsitsikamma, South Africa: Food security and livelihood threats to fishers bordering the Tsitsikamma Marine Protected Area', <https://www.communityconservation.net/tsitsikamma-south-africa/> accessed 22/02/2021.

African Black (Nguni descendants), profess belief in, and or engage in ritual activity that expresses a deep relationship with the ancestral world. As the research revealed, these ancestors reside on the seabed, in flowing rivers, waterfalls, streams and estuaries. Hence the environmental conservation of all these flowing waters is critical in the maintenance of beliefs and ritual practice.

- 5.3.5 Secondary data analysis reveals a wealth of ancient shell middens (seashell sites) and caves with ancient rock art (produced by the First Peoples) in the Eastern Cape Province. These (Klasies, Blombos, Pinnacle Point) are inshore sites of archaeological and tangible heritage significance, recently (February 2022) nominated by the South African government for World Heritage status. Even those sites not nominated for either national or World Heritage status however, may be considered (by the local population) to be valuable and worthy of conservation. Section 5 of NHRA recognises this and upholds the value of cultural heritages as expressed by South Africans.
- 5.3.6 Inshore and archaeologically significant sites are also connected to coastal cultural heritages, since some rock art in these sites express the coastal activity of aquatic hunter gatherers. These sites reveal that historically, Khoisan peoples moved between inland sites and coastal sites. The sites are directly on the shore and experience to varying degrees, existing impacts (i.e. the impacts of property development and urban regeneration.). Thus, archaeological sites cannot be dismissed as mere expression of past relationships in specific ecological niches. For, and found in our research, present day Khoisan descendants are now re-membering and re-establishing connection with this history and are reviving pilgrimages to the sea and to these publicly recognised archaeological sites to reconnect with histories suppressed under colonial and apartheid rule.
- 5.3.7 Relatedly, the indigenous peoples of South Africa, who are considered Nguni descendants (i.e., Xhosa peoples), have both historical and contemporary coastal cultural heritage. As explained next, they believe that living waterways house ancestral spirits and that regular and sustained communion with such spirits and the ecological spaces noted, nourish and support benevolent relationships with the ancestral world. The ancestors are consulted for a diversity of reasons, such as explanation of ill health, a venture to be undertaken, for significant life cycle rituals (birth, marriage and circumcision for instance).

5.3.8 In our interview with two healer-diviners in the Eastern Cape Province, we learned the deep, spiritual, ancestral, intangible cultural heritage connection of the Nguni peoples to the sea and coast. Thabo, a healer-diviner told us:

“...I have 15 years *ndigodusiwe*, that is, since I was ‘taken home’ (into the ancestral world) as a traditional healer. I help...people with *Umoya* (spiritual calling). Even when someone is poisoned by black poison [black magic], I help them. I also help people *Ndiyafukamisa* (ritual with people at the ocean) or even at the river.

The rules of being *iqgrirha uyafukamisa zonke ezindawo* (ritual involving healing with the ocean) happens because we believe in ancestors. In traditional healing, we have people who are *from the ocean* and people who *from the water/river*. It is important then that when we go to ocean, we go there are pray and ask the ancestors for help.

There are also medicines at the ocean (*amafutha enje*) and when we go there have things that we go off to the ancestors and we don’t just take things from the ocean without giving back to them. *Ulwandle nalo luyafukenyele*, you could stay there for a week and *listen to the noise the ocean makes*. Sometimes, someone could have strange noises in their ears and not hear and we say that person must go and *experience the noise of the ocean*. Sound can open the ears, or even pouring the [sea] water into the ears will have the effect of opening the ears. Sometimes even when someone has a stomach-ache or has been poisoned, you can give them ocean water and that will clean that poison out. That’s why we work with the ocean and the water because that water can help us in healing people.

There are medicines out there...Unfortunately we can’t reach those medicines now because of the new laws that are now in place that says we can’t go there [to the sea]... there are lots of medicines that found on the ocean bed and by the ocean.

It has been a very long time [since we had access to the sea] and it’s not easy to gain access. There are rangers who guard/monitor people. And if you go there, you have to go there with permits... but people are still getting sick and people are still in a lot of trouble.

Even if you have a permit here or if you don’t have a permit, it is still hard here. The permits for traditional healers are only arriving now (a new development) and they ways to close us off from access...in the past we use to believe in ancestors, we never believed in papers and permits.”

5.3.9 Thandi, another healer-diviner from the Eastern Cape Province revealed the Nguni peoples’ intangible cultural heritage of the coast, she said:

“[My spiritual belief does not] restrict us to the sea [we can go to] the dams, the rivers and so on and so forth where you would go and have an intimate conversation with your ancestors. You would go and ask for healing. You would go and ask for numerous or series of factors that would be part of your journey in terms of spirituality... We can take it from the rivers straight to where the rivers actually flowing to the sea, but the procedure is the same.

So, in terms of water, I believe that you may know that life began at water and that's where we then go and have these talks with spirits and with our forefathers. We may ask for whatever that we would ask in terms of having to live, to heal. If its darkness, that's overshadowing us, we may ask for that darkness to be removed. A whole lot of people are so scared to be part of this journey... There are complicated scenarios but it's not really complex, cause you're dealing with ancestors, people who are closer to God. If you are a spiritual healer, there's no way that you would totally discard God out of the picture because God is the creation of everything. Even the ancestors are created by God but it's just that we praise God in various ways. So, God is the umbrella of all things and then the ancestors. So, *water then plays that pivotal role in terms of cleansing...* you're getting onto a different stage now where you need to be pure. [Ancestors are] people that are protecting you are elderly people that are pure, pure spirits. It's people that are not dealing with *umuthi* ...we are *amagqirha* [healer-diviners]. I'm actually *Igqirha*... *Igqirha* doesn't deal with bad *umuthi*, *Igqirha* is someone who is actually giving healing, someone who is actually cleansing, someone who is communicating to ancestors in terms of having to give healing to whoever seeks help. So, what that *amagqirha* would use for cleansing, for ensuring that you are getting into a point whereby you get to be linked to your ancestors and you have to respect what's in water.

There's diet that you need to follow, there's certain things that you need to discard totally out of your life because you are dealing with water. Water is pure, you are dealing with water. So that's the first part, let us not just take it to the ocean because a river also plays a very important role in terms of that and there are certain stages that one has got to follow as *Igqirha* when you go through that process or channel which is then stages what we call *infukamo*. As *Igqirha* you'd have to go and stay by the river and have your heart over there...you'd actually see them in such a symbolic manner where you would probably have a wild animal that would probably come ...or a bird or even by the river you'd see some sea-lion, something that is totally unique.

Personally, I would hallucinate, or I would have these visions or I would dream of someone saying to me “we need to meet”, elderly person, or just perhaps a kid because some of those ancestors died when they were young. “I’d want to see you by the river” or “ I’d want to see you by the beach” and they would just show you the spot, it wouldn’t be the spot that you’d go to but they’d show you the design or the layout of the place that they would want to see you. And definitely you’d drive or you’d walk and be in that field and for sure ... it would be [as if] you were in the river, you would have birds flying around showing that they’re there for you, you’d have birds crossing the river. You would have dolphins just swimming around and sharks and so on and so forth. It just shows that they’re there for you. You’d feel the atmosphere around you, the background and the presence and then you would address and say whatever you want to say. *If they want you to go cleanse yourself, they’d actually tell you that you must actually go cleanse yourself at the sea.*

- 5.3.10 Thandi’s account tells that for intangible cultural heritage to thrive, it is not only the sea that should be kept unpolluted for local communities, it is important to safeguard and protect coastal fauna and flora – which form an integral part of the ritual processes undertaken by local community members.
- 5.3.11 While the healer-diviners are the cultural ‘experts’ and ‘professionals’ in ritual action with the sea, ordinary people encountered during research also revealed their interaction with and belief in ancestors that reside in the oceans.
- 5.3.12 Thus, living waters (rivers, streams, pools, lakes, estuaries and seas) should be kept pristine for ease of and successful communication with the ancestors. Indigenous peoples (and some of those defined as Coloured under the apartheid regime), also imbibe sea water, as part of a complex set of ritual practices that facilitate contact with the ancestral world. Thus estuaries, rivers and streams fed by oceanic waters are sites as well. These are cultural and sacred landscapes and their waters (as well as seawater) are used for ritual purposes.
- 5.3.13 European descendants in the research sites also cultivate a cultural relationship with ocean and coast. A majority of responses in this regard focused on leisure pursuits at the coast. Interviews on these subjects revealed that coastal sporting/leisure activities had become ICH for these communities, since the activities contained strong cultural elements (i.e., social grouping, ritual practices, commensality, unique identity, shared histories) and that these were practiced on a regular and continuing basis.

5.3.14 Our research also revealed the role of the sea and leisure at the sea as an important deterrent against substance abuse and crime. One man interviewed in Kranshoek, Plettenberg Bay, said to us: ‘Ol’ pal, how can I bring it across? [The ocean] can help alleviate some of these issues of ours. How can I bring it across? We may be able to get a little vehicle to ferry people to the beach. You can bring R5 or so. We can go to the dam where we are able to swim. It will help take the children’s attention off *Tik* (drug). You know *Tik* plays a major role in our lives all over the land no matter where one is from.’

5.3.15 Others told of the healing and rejuvenating power of the sea and the reasons why they swim and go into the sea for health. One man from the Eastern Cape Province, near Tsitsikamma, told us,

“I did not believe it until I discovered it. You’re drinking this litre to clean your stomach. The ocean cleanses you and many days...You have ride over the water (*referring to illness*), so the sea spits you out again and it doesn’t spit you out where you fell, it spits you out in a different place. But when it comes to sicknesses, you can drink the water to clean yourself on the inside. You don’t have to go to town, just fetch a litre of water and drink it and then you’re cleaning your body on the inside and then you’re fresh. Oh brother, the waves (short silence). With a fish, once there’s a pull and you start pulling your pole and you feel the pull of the fish, *that is like heaven*.

Oh brother, let me tell you something. If I just feel that breeze in the morning, that inhalation, then you feel human. If I’ve had a drink at night and go swimming the next morning, then I’m like a fresh buck that jumps all day. I always told my father when he was alive, my sick dad, ‘daddy take me to the beach.’ Then I would’ve had some alcohol the previous night and he would complain that I shouldn’t drink. I would take a quick swim and I’d be like a buck for the rest of the day. But one thing, the ocean tires you. You could be active all day and tonight you’ll be fast asleep’.

5.3.16 The research also revealed the role of other stakeholder groups in recognising and protecting coastal cultural heritage. These groups included municipalities and property developers who focus on the unique features of coastal towns (Tangible and Intangible cultural heritage) and leverage these features for infrastructure development and investment respectively. For instance, we found that, the Western

Cape government has produced a series of feasibility studies in 2021,²² including a World Heritage Site (WHS) socioeconomic study. The study has been commissioned:

... under part 3(h) of schedule 1033 of the South African World Heritage Convention Act No. 49 of 1999 (SAWHCA) Format and Procedure for The Nomination of World Heritage Sites in The Republic of South Africa. The general purpose of the Study is to identify the possible socio-economic and tourism benefits to the local community derived from the declaration of the serial nomination as World Heritage Site. More specifically, the Study should determine the potential community benefits to be derived from the serial nomination; the projected jobs to be created, as a direct and indirect result of the nomination; potential funding sources, present and future, to support the programmes at the World Heritage Site and the sustainability thereof.

5.3.17 The Pinnacle Point Site Complex in the Southern Cape (which is in Plettenberg Bay) are noted as archaeologically significant sites (and therefore mixed tangible/intangible cultural heritage sites) worthy of world heritage status. As already noted, in February 2022, the South African government approved the nomination of these sites for World Heritage status, as well as four other sites (including sites in the southern cape coast and in Kwazulu-Natal). The sites are already declared as national heritage sites. The South African cabinet noted that the nominated sites ‘collectively contribute to the understanding of the evolution of humankind and they showcase the long sequences of human occupation over tens of thousands of years with evidence dating the period of the emergence of modern humans’. The submission of the sites for nomination is said to be ‘aligned to the World Heritage Convention Act, 49 of 1999, which provides for countries to make these submissions as part of the global understanding of the evolution of humans.’²³

5.3.18 Some of the SSF encountered in the Eastern Cape Province (specifically in Plettenberg Bay and St Francis Bay), demonstrated greater cultural proximity to the ocean and coast. Thus, they personalised the ocean and coasts more, recognised the agency of the

²² Western Cape Government, 2021. *Socio-Economic Study for The Proposed World Heritage Site Nomination: The Emergence Of Modern Humans: The Pleistocene Occupation Sites Of South Africa*, personal copy.

²³ Government of South Africa, 9 February 2022. ‘Statement of the Virtual Cabinet Meeting of 9 February 2022’, <https://www.gov.za/speeches/statement-cabinet-meeting-9-february-2022-11-feb-2022-0000> accessed 02/04/2022.

sea itself and the social personalities of marine life. They also more keenly noted human-ocean symbiosis, the reliance of humans on the sea not only for subsistence but for sensory experience and holistic existence. A further finding regards the twinning of diverse ecological niches in the coastal biome and the consequent expression of dual cultural heritages that showcase the holistic nature of coastal cultural heritage. These are forms of biocultural heritage, since they intertwine floral/faunal expressions of marine biodiversity, geological markers and human engagement with such diversity.

5.3.19 These comments emphasised the holistic and rhythmic/cyclical nature of cultural heritage expression and experience at the coast, as well as the physics of water, which was indicated to offer balance and wellbeing to humans. The research found that ICH was gendered and that it had a generational dimension. Secondly, the oceans and coasts formed part of the early socialisation of boys and young men, drawing them into the coastal ecological niche as part of a locally embedded, masculine socialisation. There are gendered cultural heritage with the oceans and coast.

5.3.20 Finally, the research found that coastal cultural heritages are similarly considered by indigenous South Africans and some southern African immigrant groups. An interview with a Zimbabwean woman, as well as secondary data on southern African water rituals, revealed that southern Africans share in their veneration of the ancestors and in belief regarding ancestral worlds. They also share in belief regarding living water ‘housing’ ancestral spirits and realms. Specifically, the secondary data analysis tells of Mami Wata – a feminine goddess, who resides in rivers and at the bottom of the ocean. Belief in Mami Wata is apparent across many African countries, not just southern Africa.²⁴ An incarnation of Mami Wata is also said to be apparent in Yemanja/Lemanja, the goddess of the sea, who is revered in the African-American diaspora of Brazil, the Caribbean and the United States. Thus, heritages are not merely national or global, they are also continental and regional. Conservation of heritage therefore, may have positive implications for the restoration of African and diaspora human dignity, history and indigenous knowledge forms.

Photographs noted in Figures below, visually depict the relationship of South Africa’s coastal peoples with the sea. The images also visually represent a brief selection of the consultation and interviews conducted.

²⁴ Drewal, H.J., ‘Mami Wata: Arts for Water Spirits in Africa and its Diasporas’, https://static1.squarespace.com/static/5afcdd6675f9ee58a6be4a2c/t/5b08813d0e2e72c75242443b/1527284037283/28_Mama+Wata_Selected.pdf accessed 12/04/2022.



Figure 5 Interviewing Healer-Diviners in the Eastern Cape regarding the value of the ocean to cultural heritage

Source: Francois du Plessis.



Figure 6 Healer Diviner in Tsitsikamma tells us about the role of the sea in Xhosa belief and ritual practice, 2021.

Source: Francois du Plessis.



Figure 7 Fish Traps off Still Bay, April 2022. These are believed to have been created by the Khoisan and have high archaeological and tangible heritage value.

Source: Francois du Plessis



Figure 8 Explaining the Khoisan ritual and cultural connection with the ocean and coasts and the role of the re-membering the indigenous past

Source: Laetitia Bosch

6. ASSESSMENT FOR THE SURVEY AREA OF INTEREST IN THE ALGOA/OUTENIQUA BASIN

The following provides an overview of the impact of normal operations, unplanned events and the potential cumulative impacts for the Survey Area of Interest in the Algoa/Outeniqua Basin. Areas of indirect influence for this block stretches from Plettenberg Bay to Gqeberha in the Eastern Cape Province. The sections below provide an overview of the receptors, a disaggregated assessment of normal operations, unplanned events and cumulative impacts on intangible cultural heritage.

6.1 Overview of Impacts

Two years (2020-2022) of anthropological fieldwork in South Africa reveals a rich and diverse intangible and tangible cultural heritage, as well as rich human cultural relations with the sea. The research has also revealed varied socioeconomic situation of coastal towns and cities in the country, as well as the varied populations inhabiting the Eastern Cape coastline. The findings require a disaggregation of impacts, as noted next.

- 6.1.1 Algoa Bay has a thriving coastal ‘world’, that includes commercial activity in two ports, regular arrivals of leisure/cruising ships, SSF activity, yachting club enthusiasts, various water sporting activities, including the annual Iron Man event – a triathlon that includes several kilometres of swimming in open sea. From the strictly ritual perspective, the Bay has many Xhosa speaking peoples, as well as others descended from the Nguni groups, who use the sea to commune with the ancestral world. Impacts on these activities and cultural uses of the sea may occur, should normal operations of the project take place.
- 6.1.2 St Francis Bay and Jeffreys Bay areas are split between squid fisher (SSF) uses of the sea, and leisured (surfing, kite surfing, swimming) uses of the ocean. These towns have a deep sense of place and people living there have regular and substantive livelihood and leisure connection with the sea. SSF and leisure uses of the sea may be impacted by normal operations and unplanned events.
- 6.1.3 Tsitsikamma to Plettenberg Bay are rich natural and cultural heritage sites. They are also sites of significant archaeological/tangible cultural heritage. Some of these sites (as noted in this report), are being assessed as part of a World Heritage application by the South African government. The areas also form part of renewed interest in intangible cultural heritage conservation in South Africa. Khoisan peoples in particular

wish to conserve, elevate and have recognised the fish traps to be found on the Eastern Cape Coast. They also wish to have better opportunities to commune with the sea, a relationship their ancestors had – and which was largely denied to them under apartheid. Cultural heritage expression in these locales may be impacted by the proposed 3D seismic surveys.

- 6.1.4 A further finding of the research conducted, is that the higher the cultural value of the receptors, the higher the sensitivity of the receptor. Thus, there are highly valuable archaeological (tangible cultural) sites in Plettenberg Bay, Knysna and in Tsitsikamma. These also hold high intangible cultural heritage value. In this regard, these receptors are highly sensitive. The sites ‘house’ the cultural heritage of the First Peoples of South Africa and ultimately, the human heritage of the world. Within South Africa, the sites tell the story of both tangible and intangible heritage, the values, beliefs, practices of the First Peoples and how they were engaging the sea and coast. The high value and consequently, high sensitivity of cultural sites need to be considered and factored in mitigation measures.

6.2 NORMAL OPERATIONS IMPACTS

6.2.1 Source of Impact

The characteristics of the seismic survey are identified as follows:

Table 4 Characteristics of the 3D seismic survey

Airgun	
Type of Energy Source	Pressurized air
No. of airgun arrays	3
No. of active airguns	Approximately 36 per array
Spacings between airgun arrays	50 m to 100m
Towing depth of the airgun	Approximately 7 m
Source volume	Max 3 000 cubic inches each
Operational pressure	2 000 psi
Shot interval	Max every 5 seconds, 18.75 m interval between consecutive shot-points
Hydrophone Streamer	
Types of streamer	Solid
Number of streamers	8

Length of streamer	6 000 m
Depth of streamer	10 to 20 m

The process, according to project information provided by SLR , includes:

- Seismic survey vessel: There will be one or two survey vessels equipped with seismic source and streamers. Under the Convention on the International Regulations for Preventing Collisions at Sea (COLREGS, 1972, Part B, Section II, Rule 18), a seismic survey that is engaged in surveying is defined as a “*vessel restricted in its ability to manoeuvre*”, which requires that power-driven and sailing vessels give way to a vessel restricted in her ability to manoeuvre. Vessels engaged in fishing are required to, so far as possible, keep out of the way of the seismic operation. It is also considered to be an “offshore installation” in terms of the Marine Traffic Act, 1981 (No. 2 of 1981), and as such it is protected by a 500 m exclusion zone.
- Support and escort (‘chase’) vessel: The proposed survey would be supported by two vessels. The support vessel would perform logistics support (including crew changes, supply of equipment, fuel, food and water) to the survey vessel. The escort vessel will assist in monitoring for and alerting other vessels (e.g. fishing, transport, etc.) about the survey and the lack of manoeuvrability of the survey vessel. At a minimum, one Fisheries Liaison Officer (FLO) person speaking English and Afrikaans will be on board the escort vessel to facilitate communication in the local language with the fishing (or other) vessels that are in the area.
- Onshore supply base: The onshore supply base will be at the Port of Gqeberha. The service infrastructure required to provide the necessary onshore support is already in place in Gqeberha and no additional onshore infrastructure should be necessary for this project. It is also proposed to refuel in port during crew changes/re-provisioning.

The normal operation of vessels may result in various discharges to sea, including galley waste, grey water, sewage, deck drainage, etc. This is, however, not unique to seismic surveys, but similar to any other vessel traveling along the South African coast. 3D seismic surveys will result in the potential disturbance of ancestors who are believed to be situated on the seafloor, as soundwaves penetrate soil layers and reflect off the seafloor (see Figure 7 below).

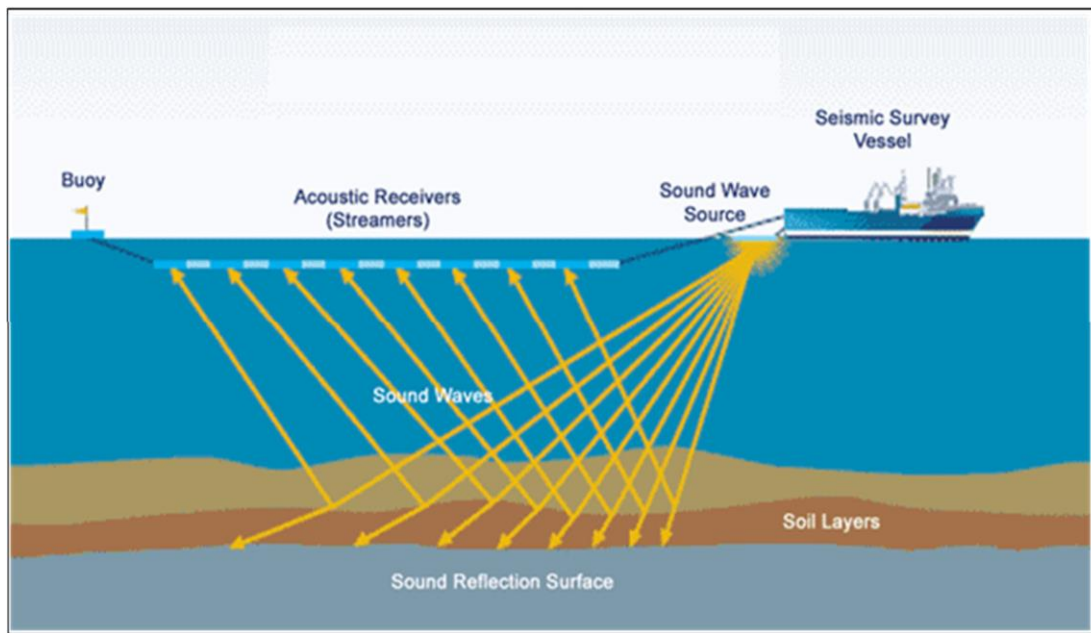


Figure 9 3D seismic survey and Vessel. Demonstration of Operations

Source: <https://www.tes.com/>

6.2.2 Potential Impact Description

Any impact on the integrity of the coastal and marine ecosystem through disturbance, pollution, noise, etc. could impact various aspects which make up people's intangible cultural heritage (**indirect negative** impact). Groups may also contest the importance of specific cultural heritages. Because of South Africa's cultural diversity there are a diversity of beliefs and religious symbolism associated with the coast. The right to culture and to cultural expression is also enshrined in the South African Constitution. Therefore, TH and ICH should be jointly and widely considered when analysing the significance of cultural heritage in a coastal context.

7.2.3 Receptors/Heritages at the coast

7.2.4 **Ancestry/Spiritual:** The sea is described as 'living' waters and is believed to play a critical role in spiritual and health management in indigenous groups specifically (First Peoples and Nguni). The sea is also believed to be *sentient/conscious*. That is, it is believed that the ocean is a living organism which forms part of and sustains a balanced globalized ecosystem. Any impact on these 'living' waters may therefore impact communication with the ancestors, who are consulted for a diversity of reasons, e.g. explanation of ill health, a venture to be undertaken, for significant life cycle rituals

(birth, marriage and circumcision for instance). Impact on the ‘living’ waters is also considered to be a *violation* of the ocean (since the ocean is alive). Human connection with the ocean is through embodied experience, as well as culture. Presently, cultural measures are ‘possible’ means to lessen future negative consequences both in the natural and cultural world. Thus, to mitigate the impacts of a 3D seismic survey which are likely to disturb the seabed (in physical and cultural terms), there is a real need to engage ancestral spirits that are believed to reside on the seabed. Engagement with the ancestors is also important because polluted water may impact ocean/sea use for use as an emetic or in other ritual practice.²⁵

In South Africa, cultural heritage and spiritual uses of the sea is also gendered. Women and men have different engagements with the sea. Men are more likely to use the sea for subsistence and leisure purposes (such as sailing, surfing, kite surfing, swimming, canoeing and paddling), whereas women are more likely to use the sea for cultural and for health purposes, such as ritual emetics, body healing, rituals involving seawater ingestion to obtain the blessing of ancestors or banish reproductive illness. Considerations of gendered, cultural uses of the sea is also critical in the 3D seismic survey of the oceans.

7.2.5 Archaeology/Tangible Heritage: The sea is part of the South African coastline, a coastline shaped by human cultural relations and beliefs. Like the Northern Belt Coast (which stretches from Alexander Bay, through Port Nolloth to Hondeklipbaai), the West Coast and the South Cape Coast; the Eastern Cape Coast has archaeologically and culturally significant coastal sites. These sites form part of the belief and ritual complex of the First Peoples and Nguni peoples. Impacts on the sea may affect the coastal caves and archaeological heritage in these sites of cultural significance. These are: Klasies river mouth, Pinnacle Point and the Blombos caves (outside of the project area of influence), among other sites of cultural significance not publicly discussed. These sites are not only relevant to South Africa, the Government of South Africa recently (i.e. February 2022) declared such sites to ‘collectively contribute to the understanding of the evolution of humankind’.

7.2.6 Sense of Place: The sea also provides and enhances unique ‘senses of place’. These are the unique, social, aesthetic and cultural values of the place in the sea or next to the sea

²⁵ The fact that many other seismic surveys have been conducted prior to the proposed seismic survey does not mean that the cultural impacts of the proposed survey will be negligible.

which may include intangible cultural heritage practices and beliefs. The Klasies River Mouth, Blombos caves, and the rich shell middens even in the Eastern Cape are examples of such sites. There are also naturally valuable sites, such as Tsitsikamma, the Knysna Estuary, Plettenberg Bay and St Francis Bay that all have a unique sense of place. The unique sense of place is determined by specific cultural groups in South Africa, such as the Nguni peoples, the First Peoples and also those defined as European descendants.

7.2.7 Livelihoods: While the area from Plettenberg Bay to Algoa Bay has significant spawning areas and sites of SSF use of the sea, the areas of indirect influence to the Survey Area of Interest in the Algoa/Outeniqua Basin also have leisure, tourism and sporting businesses that provide a source of intangible cultural heritage and local/foreign direct investment. Jeffreys Bay, St Francis Bay, Algoa Bay and Plettenberg Bay are well-known as coastal tourism destinations for South Africans and international tourists. The area stretching from Tsitsikamma to Knysna is also known for its natural heritage and historical value. In Knysna, endemic marine life (i.e. Knysna seahorse) add to the natural heritage value of the town. Impacts on the sea may affect natural and cultural heritage valuation (and therefore property valuations), tourism receipts in these towns and thereby income and associated livelihoods.

7.2.7.1 Natural heritage: People have a cultural relationship with the ocean and coast (i.e. nature) and this results in high cultural valuation of nature. Coastal sporting / leisure / tourism activities in nature have become intangible cultural heritage for these communities, since the activities contain strong cultural elements (i.e., social grouping, ritual practices, commensality, unique identity, shared histories, etc.). Natural heritage is interdependent with intangible cultural heritage.

7.2.7.2 Health: People use the sea in cultural ways to improve, sustain and restore physical and mental health. Access to a healthy ocean is critical in this regard. Any impact on the ocean, such as pollution, may affect the health of coastal communities who regularly access the sea to sustain physical and psychological health. For example, people at the coast walk by the sea, they admire marine life in the sea and these activities positively improve both physical and mental health. In the Eastern Cape Province, specifically Algoa Bay, the team found many instances of local inhabitants across the ‘racial’ spectrum in South Africa, using the coastal areas (as cultured and leisured spaces) to improve health.

7.2.4 Project Controls

The surveying contractor must ensure that the proposed project is undertaken in a manner consistent with good international industry practice and Best Available Techniques (BAT). In addition, contractors will ensure that the proposed surveys are undertaken in compliance with the applicable requirements in MARPOL 73/78,

7.2.5 Sensitivity of Receptors

The sensitivity of a receptor is defined on a scale of Very Low, Low, Moderate, High or Very High guided by the definitions in briefing note. These are derived from the baseline information. Under normal operations the:

- **Ancestry / spirituality** receptor sensitivity is high to very high in the Eastern Cape. Unlike the Western Cape region or Northern Cape regions, this receptor will have to be consistently and very carefully handled by the project leaders, as the intensity of use of the waters for ancestral/spiritual reasons in the Eastern Cape province is very high.
- **Archaeology/Tangible heritage** receptor sensitivity is moderate. Many sites are onshore and can be mitigated via avoidance of areas where there are vulnerable archaeological sites. Although this receptor sensitivity cannot be low because Khoisan descendants and leaders use these coastal waters for ritual purposes and these leaders will also have to be engaged in a thorough process of consultation prior to the commencement of normal operations.
- **Sense of Place** receptor sensitivity is moderate to high because the areas are used for multiple purposes (i.e., leisure, income generation via tourism, SSF use, ritual purposes), all of which combine to produce a unique sense of place for each site. For example, St Francis Bay is both a leisure place and a place for SSF use/fishing activity.
- **Livelihoods** receptor sensitivity is very high because communities in all the sites, affected by normal operations in the Survey Area of Interest in the Algoa/Outeniqua Basin *directly* depend on fish and squid for subsistence. The secondary data shows that the squid stocks are only now increasing slightly, after a collapse in 2012. Normal operations may have a potentially less negative impact in sites where there is existing commercial fishing activity and port activity, such as in Algoa Bay. This presumes that normal operations will be efficiently managed by the existing support infrastructure – i.e., the ports of Algoa Bay and their servitudes.

- **Natural heritage** receptor sensitivity is moderate, since natural and cultural heritages are interdependent. Any pollution or other form of negative impact on the sea, arising during normal operations may impact on natural phenomena (i.e. fish, shellfish, fynbos, mangroves, penguins, beach), these in turn may form part of cultural heritage practices. Unplanned events such as oil spills have more serious, medium term impacts.
- **Health** receptor sensitivity is moderate under normal operations, as operations efficiently managed should not have adverse impacts on human health. However, it is not low sensitivity because the project vessels might affect health uses of the sea. i.e., the water is no longer perceived as pristine enough for ritual activities and if so, it may affect the cultural wellbeing of indigenes, as noted in this report.
- To summarize: combined and prior to mitigation efforts and considering the proximity of the proposed block to the shore, the overall sensitivity of receptors to 3D seismic survey operations is assessed to be moderate to high.

7.2.5 Impact Magnitude (or Consequence)

Magnitude (or Consequence) is determined based on a combination of the “intensity”, “duration” and “extent” of the impact. In normal operations, the following is evident:

- Duration: The duration of the impact is assessed to be short-term, as what is proposed is 3D seismic surveys.
- Extent: The extent is assessed to be regional
- Intensity: the intensity is assessed to be high, due to perceived impact with limited consultation in the pre-mitigation phase.

To summarize: The potential impact of normal operations on receptors noted above and prior to mitigation is considered to be of **high intensity, short-term duration** and **regional extent**. Thus, the **magnitude** (or consequence) is considered to **medium**. Appropriate and substantive public participation efforts in the pre-mitigation phase can reduce the intensity of impact, but avoidance of operations during spawning season – as noted in the marine faunal report for the block – will reduce impacts further.

To contextualize the impacts on tangible and intangible cultural heritage, it is assessed that the magnitude of the impact will be **medium**. The magnitude cannot be assessed lower than medium because of the *proximity* of the block to the shore, the sensitivity of the receptors

identified and the centrality of the operations of SSF and cultural/natural heritage uses. Secondly, the Eastern Cape Province is a place where the majority of Nguni descendants and Khoisan descendants live. These groups have a substantive and rich intangible cultural heritage relation with the sea and coast – these communities require clean coasts and undisturbed seabeds for ritual activity. Even though there are existing impacts on coast and seabed caused by commercial fishing and other hydrocarbon exploration activities off the South Coast, the current legislation requires a thorough assessment and mitigation of impacts prior to new operations. Thirdly, constitutionally South Africans have the right to culture and cultural expression, fourth, there is recent legal precedence, of national attention being given to the importance of coastal cultural heritage and fifth, South Africa is globally known for its safeguarding of indigenous rights via both ratified international agreements and domestic law. These facts make cultural heritage visible and make it a sensitive issue for the public. Consistent and substantive effort to include indigenous people and their input in the processes associated with normal operations will lessen the magnitude of impact as noted in the Table 3 on Normal Operations.

7.2.6 Impact Significance

Based on the **high sensitivity** of receptors (under normal operations and prior to mitigation), and the **medium magnitude**, the potential impact of offshore 3D seismic survey activities on intangible cultural heritage is considered to be **medium significance** without mitigation. To reduce the impact of significance, mitigation measures need to be implemented.

7.2.7 Identification of Mitigation Measures

The following measures should be implemented to mitigate impact on intangible cultural heritage:

No.	Mitigation measure	Classification
1	Implement comprehensive consultation with indigenous groupings and leadership, as well as those who fall outside this category. The aim of such engagement should ensure open communication, direct communication and consistent communication with stakeholders that may be affected by operations.	Avoid / abate offsite
2	Implement a ritual event/s that permits engagement with ancestral spirits and living communities to alleviate potential and future negative impacts of non-consultation and poor cultural/nature respect.	Avoid / abate on site
3	Implement a gender sensitive ritual event in each region that recognizes gendered coastal cultural heritage to permit all genders	Abate

No.	Mitigation measure	Classification
	to articulate their cultural relation with the sea and coast, in consultation with indigenous groupings	
4	Implement public information sessions that addresses perception of perceived impacts versus other, cumulative impacts on the sea	Abate

7.2.8 Residual Impact Assessment

Sustained consultation with relevant stakeholders and the possible implementation of a ritual event/s that permits engagement with ancestral spirits may alleviate the potential and future negative impacts of non-consultation and poor cultural respect. The proposed mitigation could reduce the intensity and magnitude of the impact to **medium**, thereby reducing residual impact to **low significance**.

Table 5 Normal Operations Impacts on Cultural Heritage

	CULTURAL HERITAGE IMPACT NORMAL OPERATIONS BLOCK ALGOA-GAMTOOS BASIN	
Project Phase:	3D SEISMIC SURVEY	
Type of Impact	Indirect	
Nature of Impact	Negative	
	Pre-Mitigation Impact	Residual Impact
Sensitivity of Receptor	HIGH	MEDIUM
Magnitude	MEDIUM	LOW
Intensity	HIGH	LOW
Extent	REGIONAL	REGIONAL
Duration	SHORT TERM	SHORT TERM
Significance	MEDIUM	LOW
Probability	POSSIBLE	LIKELY
Confidence	HIGH	MEDIUM
Reversibility	PARTIALLY REVERSIBLE	PARTIALLY REVERSIBLE
Loss of Resources	LOW	LOW
Mitigation Potential	MEDIUM	MEDIUM
Cumulative Potential	LIKELY	LIKELY

7.3 UNPLANNED EVENTS IMPACTS

7.3.1 Source of Impact

Accidental release of oil or diesel at sea that could result in an oil and/or natural gas spill:

Project phase	Activity
Operation	Bunkering of fuel in port Vessel accident and damage to survey equipment
Mobilisation and Demobilisation	Vessel accident

Small instantaneous spills of marine diesel at the surface of the sea can potentially occur during bunkering and such spills are usually of a low volume. Very low volumes of hydraulic fluid can be involved in the case of streamer damage.

Larger volume spills of marine diesel could occur in the event of a vessel collision or vessel accident.

7.3.2 Potential Impact Description

Any impact on the integrity of the coastal and marine ecosystem through an accidental spill of diesel, hydraulic fluid and/or oil could have an immediate detrimental effect on the marine environment and thus in turn could impact various aspects which make up people's intangible cultural heritage (**indirect negative** impact). However, unplanned events in the areas of indirect influence to the Survey Area of Interest in the Algoa/Outeniqua Basin are likely to only be related to small spills and would not be unique to seismic surveys, but similar to any other vessel traveling along the South African coast. Based on the currents, prevailing wind conditions and the results of an oil spill modelling exercise undertaken in a portion of Block 11B/12B to the west of the area of interest (HES, 2019), a diesel slick would most likely be blown in a narrow plume extending in a south-westerly direction away from the coast. The diesel would most likely remain at the surface for less than 5 days with a negligible probability of reaching the coast.

7.3.3 Project Controls

Project controls include the preparation and implementation of a Shipboard Oil Pollution Emergency Plan (SOPEP), an Emergency Responses Plan and compliance with MARPOL requirements.

7.3.5 Sensitivity of Receptors

The sensitivity of a receptor is defined on a scale of Very Low, Low, Moderate, High or Very High guided by the definitions in the specialist briefing note. These are derived from the baseline information. Thus, the following receptor sensitivities are noted:

7.3.5.1 Ancestry / spirituality: Should an unplanned event or spill happen, the sensitivity of this receptor will rise from medium (in normal operations) to high, as ritual practice and spiritual engagement with the sea requires a healthy ocean, or at the very least, a not visibly polluted ocean. People drink seawater as an emetic in ritual purposes and swim in it for leisure and spiritual or health renewal. They may be unaware of the water quality as they are not able to see the pollution.. However, based on the proposed operations noted in this report, only minor spills are likely and these are also unlikely to reach the shore. What needs to be considered however, is that indigenous and endogenous communities have a spiritually and symbolically important relationship with the ocean and coast and the *perceived* impacts of oil/diesel spills may be high should an unplanned event occur, regardless of whether or not technical specialists classify the spill as minor.

7.3.5.2 Archaeology/Tangible Heritage: The sensitivity of this receptor will increase to high if an unplanned event occurs. This is because coastal tangible heritage sites are often vulnerable sites, containing vulnerable material culture (i.e., in shell middens there are potential human artifacts that can be destroyed by oil residues). As noted in the map provided there are sites of archaeological significance along the Eastern Cape coast.

7.3.5.3 Sense of Place: The sensitivity of this receptor will increase from medium to high if an unplanned event occurs. This is because valuable heritage towns and locations depend on the sense of place to attract visitors, researchers and investors. If the place is negatively impacted by an oil spill, these patrons and researchers will not come to the place, thereby destroying the ‘sense’ of place. However, as noted in the proposed operations, there is no drilling taking place and therefore, the chances of there being a major oil spill appear to be small.

7.3.5.4 Livelihoods: The sensitivity of this receptor will remain high in an unplanned event. SSF depend directly on fish species they catch at sea. Their livelihoods will be negatively affected. Going out to sea for SSF and use of the sea for recreational fishing is also a ritual and gendered (male) cultural heritage in the areas of indirect influence. Furthermore, anglers and deep-sea fishers organize fishing trips from which they may

earn an income but via which they are promoting recreational fishing and masculine leisure. These fishers go to the ‘deep’ sea and their fishing will be affected if there is an oil spill. What needs to be confirmed, is the exact distance that such SSF sail out to sea. Regarding other livelihoods: the sensitivity of this receptor, assessed to be medium under normal operations will increase to high in an unplanned event Areas of indirect influence to Survey Area of Interest in the Algoa/Outeniqua Basin have leisure, tourism and sporting businesses that provide a source of intangible cultural heritage and local/foreign direct investment.

7.3.5.5 Natural heritage: The sensitivity of this receptor assessed to be medium under normal operations will increase to high in an unplanned event. Since natural and cultural heritage are interdependent, any impact on the sea, as natural heritage, is going to negatively impact natural heritage (i.e., fynbos) that are used in cultural heritage practices. First Peoples and Nguni descendants are likely to be most affected, given the wide range of life cycle and healing rituals that involve use of nature (i.e., medicines from the sea and fynbos) for cultural practices.

7.3.5.6 Health: The sensitivity of this receptor, assessed to be medium under normal operations may increase to high in an unplanned event – due to the proximity of the proposed operations to the coast of the Eastern Cape. People use the sea in cultural ways to improve, sustain and restore physical and mental health. Access to a healthy ocean is critical in this regard. Any impact on the ocean, such as the oil discharges noted above, may affect the health of coastal communities who regularly imbibe seawater for cultural purposes.

7.3.5.7 To summarize: the overall sensitivity of these receptors would be high should an unplanned event occur. Swift, efficient and effective action would have to be taken to reduce the spread of the oil spill in an unplanned event, thereby reducing the extent and duration of the unplanned event.

7.3.6 Impact Magnitude (or Consequence)

Magnitude (or Consequence) is determined based on a combination of the “intensity”, “duration” and “extent” of the impact.

- Duration: Short term if clean-up operations commence swiftly and efficiently to limit ocean pollution.

- Extent: Regional because of proximity to the coast and vulnerable sites.
- Intensity: high intensity should the spill occur close to the coast due to impacts on tangible (coastal archaeological sites affected by oil spill) and intangible cultural heritage (use of the sea for cultural purposes). The actual intensity would be low intensity should the spill occur within the survey area from which it is unlikely to reach the coast. However, assessing the impacts on cultural heritage, one must include perceived impacts on cultural heritage. In my professional opinion, it is possible for perceived impact of a minor spill to be high even though the actual intensity of impact is low. Therefore, the impact of an unplanned event in the area of indirect influence, cannot be of low intensity.

The magnitude of an unplanned event on intangible and tangible coastal cultural heritage is assessed to be **medium**.

7.4.7 Impact Significance

Based on the **high sensitivity** of receptors and the medium **magnitude**, the potential impact of unplanned events on intangible cultural heritage is considered to be of medium **significance** prior to mitigation.

7.4.8 Identification of Mitigation Measures

The following measures should be implemented to mitigate impact on intangible cultural heritage:

No.	Mitigation measure	Classification
1	Emergency Plans in place for very efficient and quick resolution of oil spills as per MARPOL VI	Avoid
2	Avoid surveying within a requisite distance from ecologically vulnerable areas and culturally meaningful areas.	Avoid/Abate
3	Ensure that there is sufficient insurance cover to financially manage the consequences of any unplanned event pollution on environmental and social aspects	Abate

7.4.9 Residual Impact Assessment

The proposed mitigation would reduce the intensity and thereby the overall magnitude of the impact. This in turn would reduce the residual impact to **low significance**. It is recommended

that CGG deeply consults with relevant stakeholders during the operation period, and that ritual event/s of regional and national significance are implemented to permit engagement with ancestral spirits, living communities at the coast and the spirit of the sea itself – as there are many communities that believe in the agency of the sea and in its existence as a living organism. These actions may alleviate the potential and future negative impacts of non-consultation and poor cultural respect.

Table 6 Unplanned Events Impact

	UNPLANNED EVENTS CULTURAL HERITAGE IMPACTS ALGOA/OUTENIQUA	
Project Phase:	3D Seismic Survey	
Type of Impact	Direct	
Nature of Impact	Negative	
	Pre-Mitigation Impact	Residual Impact
Sensitivity of Receptor	HIGH	MEDIUM
Magnitude	MEDIUM	MEDIUM
Intensity	HIGH	MEDIUM
Extent	REGIONAL	REGIONAL
Duration	SHORT TERM	SHORT TERM
Significance	MEDIUM	LOW
Probability	POSSIBLE	POSSIBLE
Confidence	HIGH	MEDIUM
Reversibility	PARTIALLY REVERSIBLE	PARTIALLY REVERSIBLE
Loss of Resources	MEDIUM	LOW
Mitigation Potential	MEDIUM	MEDIUM
Cumulative Potential	UNLIKELY	UNLIKELY

7.4 CUMULATIVE IMPACTS

Cumulative existing impacts include those impacts already present in the areas researched, as well as the impacts of the project, especially in the future. Regarding existing (non-project) impacts, it is found that Algoa Bay in particular has commercial fishing impacts, port operations and recreational tourism impacts. These activities are already affecting the natural environment including the seawater and seabed. While the broader future impacts of the 3D seismic survey project are difficult to discern (especially for a cultural heritage specialist), in my professional opinion, the cumulative impacts of project activities on cultural heritage may arise due to declining ocean health (i.e., noise pollution, negative impact on marine biodiversity and, directly referring to this report – negative impact on cultural heritage). Cumulative impacts

pose a medium to high risk for the receptors of the survey area. Cumulative impacts can be reduced by shortening the overall duration of normal operations, increasing operational distance from the shore, and improving safety measures to reduce potential incidences of unplanned events.

Comparing the cumulative impacts of normal operations of the project to existing, often unmitigated impacts of commercial trawling, it could be argued that 3D seismic surveys may have less of an impact on the seabed and therefore on cultural heritage practices involving the sea than commercial fishers are presently doing. However, the project in the Survey Area of Interest in the Algoa/Outeniqua Basin, still requires proximal activity to the shore, which are areas of value for natural and cultural heritage use and conservation. From the cultural heritage perspective, 3D seismic surveys in the areas of interest *may* impact ritual processes, making waters less clean for spiritual uses. Here, the reference is to spiritual cleanliness of the natural resource for ritual use. During field research in the Eastern Cape Province for example, it was found that running, fresh, perceivably clean water is preferred for ritual purposes. Indigenous such as the Xhosa peoples, imbibe seawater as part of a complex process for communing with the ancestral spirits. If there is knowledge that the water is tainted by an oil or diesel spill, it is possible that these indigenous communities will be unwilling to use these waters for ritual purposes. In another instant, the research team were told that ancestral spirits leave unclean waters and travel to other, pristine streams, estuaries and shores. Thus, even if indigenous peoples seek to connect with their ancestors at a prescribed coastal location, they may not be able to do so, if the ancestral spirits have left that location in search of waters deemed to be more pristine or not subject to exploration activity.

7.6 PRECAUTIONARY PRINCIPLES

- 7.6.1 That CGG should undertake the requisite mitigation measures noted under the sections: normal operations and unplanned events to reduce negative impacts on receptors associated with intangible and tangible cultural heritage.
- 7.6.2 That CGG should implement measures of best practice in the industry, to reduce and minimize adverse outcomes for cultural heritage in the areas of indirect influence. This may include shortening the duration of operations for example.

7.7 RECOMMENDATIONS

- 7.7.1 It is recommended that CGG should commit to and substantive communication and information sharing sessions with affected local communities across all the identified stakeholder groups – specifically prior to the commencement of normal operations. The communication cannot merely take place with identifiable NGO and their leadership. The communication should ideally involve ordinary citizens who may not be affiliated to an NGO or local representative group. The goal is to be as inclusive as possible.
- 7.7.2 It is recommended that the nature of consultation be primarily face-to-face but also include virtual/social media engagement since the fieldwork revealed that there was little understanding of offshore operations and that there was significant mobilization against 3D seismic surveys after the Shell matter in 2021.
- 7.7.3 It is also recommended that the nature of consultation includes key, cross-sectoral (i.e., that in SA all ‘racial’ groups and economic groups be consulted/communicated with) and traditional leaders, since the ocean and coast are not merely natural heritages, they are also cultural heritages.
- 7.7.4 That specific request be made to the cross-sectoral and traditional leadership group for rituals/event/s that might showcase respect for cultural communities, their cultural valuation of the oceans/coasts for the natural/cultural value of the ocean and coasts.
- 7.7.5 That dedicated resources be set aside for such consultation since the ritual/event/s may not be once-off ritual processes even if CGG’s operations are of short-term nature.
- 7.7.6 That such activities be implemented to publicly showcase respect for local cultural worldviews and effort to realize local rights to human dignity as emphasised both the South African Constitution, NHRA and the Indigenous Knowledge Act.
- 7.7.7 That strict safeguards be introduced, and safety protocols be adhered to, as per provisions in MARPOL 73/78²⁶ Annexes I, V and VI,²⁷ to ensure significant minimisation of pollution.
- 7.7.8 That transiting survey vessels avoid, wherever possible, passing through, near or above sites of archaeological, underwater cultural heritage significance.

²⁶Convention for the Prevention of Pollution from Ships (MARPOL 73/78)

<https://maddenmaritime.files.wordpress.com/2015/08/marpol-practical-guide.pdf> accessed 12/04/2022

²⁷ C.F., UK Government. ‘Explanatory memorandum to the merchant shipping (prevention of pollution) (drilling rigs and other platforms) order 2005 2005 no.74’,

https://www.legislation.gov.uk/ukxi/2005/74/pdfs/ukxiem_20050074_en.pdf accessed 12/04/2022.

8 CONCLUSIONS

Considering the Cultural Heritage Impact Assessment offered, the conclusion is that the intangible cultural heritage receptors are sensitive in the South Cape Coast and Eastern Cape Province. While these sites are already affected by existing/cumulative impacts, mitigation plans must be implemented if the impacts of either normal operations or unplanned events are to be addressed. The coastal Eastern Cape has multiple use areas, with several archaeological sites, potential underwater cultural heritage, and active SSF families and communities. These facts need to be considered, and all the recommended protocols regarding the precautionary measures to protect the highly valued natural and cultural heritages along the potentially impacted stretch of the South African coast. Attention should be given to the management of spills and the recommended protocols that apply must be efficiently and swiftly implemented.

Regarding cultural valuation of coastal resources, it should be noted that along the noted coast, there is a combination of highly valuable and vulnerable natural heritages (estuaries, unique marine life and wetland life) which form an integral part of First Peoples and Nguni descendant's intangible cultural heritage. Indigenous cultural valuations of the coast must be prioritized, given the historical legacy of slavery and apartheid and the exclusion of these groups from decision-making processes regarding natural resource management.

Having considered secondary data that tells of marine lifecycles in the waters of the south cape coast, it is recommended that any planned surveys should not take place beyond the identified fish spawning areas or avoid fish spawning periods in those areas to safeguard ICH uses of the ocean and coasts, as well as tangible cultural heritage evident in shell middens, prehistorical caves and also ritual uses of the coastline by the First Peoples (i.e. Griqua peoples) that live along the south Cape Coast.

It is highly recommended that CGG institute a comprehensive consultation with indigenous groupings and leadership, as well as those who fall outside this category. The aim of such engagement is to ensure open communication, direct communication and consistent communication with stakeholders that may be affected by operations.

Coastal cultural heritage is both a tangible and intangible asset for South Africa. It constitutes an important element in the restorative justice process of the country, and it is key to both psychological and physical wellbeing in a country where there is major inequality and violence. It is important that companies seeking to develop the assets of South Africa engage with local

communities and seek to advance consultative, inclusive and democratic processes for socioeconomic development.

BIBLIOGRAPHY

Adhikari, M. 2005. *Not White Enough, Not Black Enough: Racial Identity in the South African Coloured Community*, University Press, Ohio.

Boswell, R., Thornton, J., Pillay, R., Terblanche, T., Maqabuka, Q., Du Plessis, F., 2021. *One Ocean Hub Field Research Report, Tsitsikamma*. (unpublished).

Boswell, R. 2023 (Under Review). ‘Legislating Marine Intangible Cultural Heritage in South Africa.’

Boswell, R. (2022), Salted Identities: Biocultural Heritage for a Rehumanized Ocean Management in South Africa. *Anthropology and Humanism*. <https://doi.org/10.1111/anhu.12402>

Boswell, R. and Thornton, J.L. (2021a). ‘Including the Khoisan for a more Inclusive Blue Economy’, *Journal of the Indian Ocean Region* 17 (2) 141-60.

Bouchenaki, M. 2003. ‘The Interdependency of the Tangible and Intangible Cultural Heritage.’ *The World Heritage Convention: Future Challenges and Possible Lines of Actions European Conference*, Roros, Norway, 03 -05 September 2003.

Christianson, B. 13 October 2021. ‘The slow squeeze on Port Nolloth’s fishermen — walled in and fenced out by mining’, <https://www.dailymaverick.co.za/article/2021-10-13-the-slow-squeeze-on-port-nolloths-fishermen-walled-in-and-fenced-out-by-mining/> accessed 02/04/2022.

Clark, B., Biccard, A., Hutchings, K., Wright, A., Mostert, B and S. Sedick, 2020. ‘*The State of St Helena Bay*’, Anchor Environmental Consultants Report no. 1908/1.

Claudino-Sales, V. 2019. *Coastal World Heritage Sites*. Springer, Verlag: Berlin.

Convention for the Prevention of Pollution from Ships (MARPOL 73/78) <https://maddenmaritime.files.wordpress.com/2015/08/marpol-practical-guide.pdf> accessed 12/04/2022

Desmet, G. 1996. ‘*The Vegetation and Restoration Potential of the Arid Coastal Belt Between Port Nolloth and Alexander Bay, Namaqualand, South Africa.*’ MSc Thesis UCT.

Gardiner, M. 2019., ‘An assessment of the impact of poverty on educational attainment for adolescents: a case study of Mitchells Plain, in Cape Town, South Africa’, https://etd.uwc.ac.za/xmlui/bitstream/handle/11394/7120/gardiner_m_ems_2019.pdf?sequence=1&isAllowed=y accessed 07/04/2022.

Gordon, R.J. 1992. *The Bushman Myth: The Making of a Namibian Underclass*. Westview Press, Boulder Colorado.

Government of South Africa, 9 February 2022. 'Statement of the Virtual Cabinet Meeting of 9 February 2022', <https://www.gov.za/speeches/statement-cabinet-meeting-9-february-2022-11-feb-2022-0000> accessed 02/04/2022.

Government of South Africa. 1996. Constitution of the Republic of South Africa. 30, 31.

Government of South Africa. 1999. National Heritage Resources Act 25 of 1999.

Government of South Africa. 2003. National Environmental Management: Protected Areas Act 57 of 2003.

Government of South Africa. 2008. National Environmental Management: Integrated Coastal Management Act of 2008

Graham, B., Ashworth, G.J. and J.E. Tunbridge, 2007. *Pluralising Pasts: Heritage, Identity and Place in Multicultural Societies*, Pluto Press: London.

Hill, R.C., Archer, F.M., & Webley, L. 1990. 'Conflict over change in land tenure in the reserves of Namaqualand, South Africa: A Role for Integrated Environmental Management', *Impact Assessment* 8:1-2, 197-215.

Jerardino, A. 2010. 'Large shell middens in Lamberts Bay, South Africa: a case of hunter gatherer resource intensification', *Journal of Archaeological Science* 37, 2291-2302.

Kirshenblatt-Gimblett, B. 2004. 'Intangible Heritage and the Metacultural Production of Heritage.' *Museum International*. 561/2: 52-66.

Masifundise, 2021. 'Lambert's Bay says 'no' to mining!' <https://www.masifundise.org/lamberts-bay-says-no-to-mining/> accessed 04/04/2022.

Mbeki, T. 2005 in *Sustainable Development in southern Africa: Our Coast for Life*, edited by Karey Evelt, Project Coordination: Johannesburg, p.5.

Muhl, E-K. and Sowman, M. 2020. 'Rights, Resources, Rezoning and the Challenges of Governance in South Africa's Oldest Marine Protected Area', *Conservation & Society* 18(4): 366-77.

Muhl, E-K. nd. 'Tsitsikamma, South Africa: Food security and livelihood threats to fishers bordering the Tsitsikamma Marine Protected Area', <https://www.communityconservation.net/tsitsikamma-south-africa/> accessed 22/02/2021

Mitchell, P. 2014. 'The canine connection II: Dogs and southern African herders', *Southern African Humanities* 26: 10-19. https://www.researchgate.net/publication/287614904_The_canine_connection_II_Dogs_and_southern_African_herders accessed 05/04/2022

Moleya, N.I. 2018. 'Equality for all religions and cultures in the South African legal system', [https://www.derebus.org.za/equality-for-all-religions-and-cultures-in-the-south-african-legal-system/#:~:text=The%20Constitution%20accords%20both%20culture,culture'%20\(my%20it%20alics\).](https://www.derebus.org.za/equality-for-all-religions-and-cultures-in-the-south-african-legal-system/#:~:text=The%20Constitution%20accords%20both%20culture,culture'%20(my%20it%20alics).) Accessed 11/04/2022.

Natural Justice, n.d. 'Cape Zircon and Buchuberg Comments', https://naturaljustice.org/wp-content/uploads/2021/05/Cape-Zircon-and-Buchuberg-Comments_West-Coast-Mining.pdf accessed 02/04/2022.

No Author, n.d. 'Cape Town, the Segregated City', <https://www.sahistory.org.za/article/cape-town-segregated-city> accessed 07/04/2022.

No author. 'Our History', <https://www.alexkor.co.za/our-history.html> accessed 31/03/2022.

No author. 7 April 2021. 'The Boegoebaai Port, Rail and Infrastructure Project', <https://www.globalafricanetwork.com/investment-projects/port-rail-infrastructure-development/> accessed 04/04/2022.

No author. Impact Oil & Gas. <https://impactoilandgas.com/assets/south-africa-orange-basin-deep/> accessed 12/04/2022.

Nthane, T.T. 2015. 'Understanding the livelihoods of small-scale fishers in Lamberts Bay:

OHCHR, 2001. Universal Declaration on Cultural Diversity. <https://www.ohchr.org/en/instruments-mechanisms/instruments/universal-declaration-cultural-diversity#:~:text=As%20a%20source%20of%20exchange,of%20present%20and%20future%20generations>. Accessed 11/04/2022.

Orton, J., Hart, T., and Halkett, D. 2005. 'Shell Middens in Namaqualand: Two Later Stone Age Sites at Rooiwalbaai, Northern Cape Province, South Africa', *The South African Archaeological Bulletin* 60 (181) 24-32.

PISCES. 2022. Marine Faunal Assessment for a Speculative 3D Seismic Survey off the Eastern Cape Coast, South Africa.

Rohde, R., Hoffmann, M.T., Allsopp, N. 'Hanging on a wire: A historical and socio-economic study of Paulshoek village in the communal area of Leliefontein, Namaqualand', Research Report no. 17. Bellville: University of the Western Cape. https://repository.uwc.ac.za/bitstream/handle/10566/4379/rr_17_hanging_on_wire_historical_socioeconomic_study_paulshoek_village_2003.pdf?sequence=1&isAllowed=y accessed 02/04/2022.

Sinxo, Z. 16 February 2022. 'Boegoebaai Harbour a bit fishy, fear small-scale fishers', <https://www.foodformzansi.co.za/boegoebaai-harbour-a-bit-fishy-fear-small-scale-fishers/> accessed 04/04/2022.

Smith, L. 2006. *The Uses of Heritage*. Routledge: London.

These are the: London Dumping Convention (1972), the Rio Conventions and the Jakarta Mandate on Marine and Coastal Biodiversity.

UK Government. 'Explanatory memorandum to the merchant shipping (prevention of pollution) (drilling rigs and other platforms) order 2005 2005 no.74', https://www.legislation.gov.uk/uksi/2005/74/pdfs/uksiem_20050074_en.pdf accessed 12/04/2022.

UNESCO. 1972. Convention Concerning the Protection of the World Cultural and Natural Heritage. <https://whc.unesco.org/archive/convention-en.pdf> accessed 22/03/2022

UNESCO. 2014. Strategic Plan for the IOC's sub-commission for Africa and the Adjacent Island States (IOCAFRICA) 2014-2021. http://legacy.ioc-unesco.org/index.php?option=com_oe&task=viewDocumentRecord&docID=23452 accessed 25/01/2021.

United Nations, 1992. The Convention on Biological Diversity. <https://www.cbd.int/convention/text/>

Wang, J. 2019. 'A review on marine heritage study: Focusing on the relationship between community and marine heritage, the value, conservation and management of marine heritage', *International Journal of Geoheritage and Parks* 7(3): 145-51.

Webley, L., and Orton, J. 2013. 'Excavation of two shell middens at Port Nolloth on the Namaqualand Coastline, Northern Cape, South Africa', *South African Archaeological Bulletin* 68 (197): 86–92.

West, M. 1969. 'Stratification in Port Nolloth', MA in Anthropology Thesis, UCT.

Western Cape Government, 2021. *Socio-Economic Study for The Proposed World Heritage Site Nomination: The Emergence Of Modern Humans: The Pleistocene Occupation Sites Of South Africa*, personal copy.

World Oceans Review. 2010. *Living with the Oceans: A Report on the State of the World's Oceans*. <https://worldoceanreview.com/en/wor-1/coasts/living-in-coastal-areas/#:~:text=At%20a%20rough%20estimate%20more,to%20400%20to%20500%20million> . Accessed 25/01/2020.

Wynberg, R., Hauck, M. 2014. 'People, Power and the Coast: A Conceptual Framework for Understanding and Implementing Benefit Sharing', *Ecology and Society* 19(1): 27.