Work Package 1:

Strategic Environmental Assessment for the proposed Boegoebaai Port and Special Economic Zone

December 2025



Work Package 1:

Strategic Environmental Assessment for the proposed Boegoebaai Port and Special Economic Zone

Edited by Greg Schreiner, Babalwa Mqokeli, Luanita Snyman-Van der Walt, Paul Lochner and Rinae Tsedu

Authors

Aiden Biccard (Anchor Environmental), Mark Botha (Conservation Strategy Tactics & Insight), Barry Clark (Anchor Environmental), Robin Colyn (AfriAvian Environmental), Liz Day (Liz Day Consulting), Albert Froneman (AfriAvian Environmental), Louise Gammage (Amethyst Independent Facilitation), Emily Gammon (Anchor Environmental), Yi-Ting Ho (Anchor Environmental), Megan Loftie-Eaton (AfriAvian Environmental), Vanessa Maitland (Independent Maritime Archaeologist), Werner Marais (Animalia Consultants), Annastacia Mpala (Amethyst Independent Facilitation), Babalwa Mgokeli (CSIR), Corné Niemandt (Bios Diversitas Consultants), Marieke Norton (Amethyst Independent Facilitation), Marietjie Oosthuizen (AfriAvian Environmental), Jayson Orton (ASHA Consulting), Kelly Ortega-Cisnero (Amethyst Independent Facilitation), John Pether (Independent Geological and Palaeontologist Consultant), Andrea Pulfrich (Pisces Environmental Services), Adam Rees (Anchor Environmental), Greg Schreiner (CSIR), Luanita Snyman-Van der Walt (CSIR), Susan Taljaard (CSIR), Rinae Tsedu (CSIR), Gretel van Rooyen (Ekotrust CC), Noel van Rooyen (Ekotrust CC), Pieter van Wyk (Independent Researcher), Catherine Ward (Amethyst Independent Facilitation), Lita Webley (Independent Heritage Practitioner), Steven Weerts (CSIR), Amy Wright (Anchor Environmental), Zanne Zeeman-du Toit (Amethyst Independent Facilitation).







Work Package 1: Strategic Environmental Assessment for the proposed Boegoebaai Port and Special Economic Zone

Published by:

CSIR
Meiring Naudé Road
Brummeria
Pretoria, 0184
www.csir.co.za

Project website: Boegoebaai Port | CSIR

Funded by: South African National Energy Development Institute (SANEDI)

Date of publication: December 2025

ISBN 978-0-7988-5675-1

CSIR Publication number: CSIR/SPLS/Ems/EXP/2025/1107/A

Recommended book citation: Schreiner, G., Mqokeli, B., Snyman-van der Walt, L., Lochner, P and Tsedu, R. (eds.). (2025). Work Package1: Strategic Environmental Assessment for the proposed Boegoebaai Port and Special Economic Zone. CSIR/SPLS/Ems/EXP/2025/1107/A, CSIR: Pretoria: ISBN 978-0-7988-5675-1.

Recommended chapter citation: Recommended citation provided on the front page of the specific chapter

Entire publication © 2025 by CSIR

Chapters © 2025 by authors

Reproduction of this book and its contents are permitted, provided that the authors and publisher are appropriately acknowledged and referenced in the reproduction. All rights to the intellectual property remain vested in the publisher and the authors.

Front cover photograph credits: Paul Lochner and Luanita Snyman-van der Walt

Report layout by Magdel van der Merwe (DTP Solutions)



Work Package 1: Strategic Environmental Assessment for the proposed Boegoebaai Port and Special Economic Zone

Work Package 1:

Strategic Environmental Assessment for the proposed Boegoebaai Port and Special Economic Zone

CONTENTS

December 2025



Contents

	Summary for Policymakers / Opsomming vir Beleidmakers (Afrikaans)
Chapter 1	Introduction & Context
Chapter 2	Marine Ecology
Chapter 3	Terrestrial and Aquatic Ecology
Chapter 3a	Appendix_ Aquatic Ecology
Chapter 3b	Appendix_ Avifauna
Chapter 3c	Appendix_ Bats
Chapter 3d	Appendix_ Fauna
Chapter 3e	Appendix_ Vegetation and Flora_A
Chapter 3f	Appendix_ Vegetation and Flora_B
Chapter 4	Biodiversity Offset Framework
Chapter 5	Heritage Resources
Chapter 6	Fisheries and Coastal Livelihoods
Chapter 6a	Appendix_ Fisheries and Coastal Livelihoods
Chapter 6b	Appendix_ Fisheries and Coastal Livelihoods
Chapter 7	Sustainable Port Planning









Work Package 1: Strategic Environmental Assessment for the proposed Boegoebaai Port and Special Economic Zone

Reviewers

The Editors would like to acknowledge and sincerely thank all those who contributed to the development of Work Package 1. This Work Package comprises seven chapters drafted by thirty-five authors, peer reviewed by eight independent expert reviewers, and enriched by the contributions of a diverse range of stakeholders who engaged through the formally constituted project Working Group.

The process to generate the scientific material for this publication included a collaborative endeavour consisting of authors, peer reviewers, as well as contributions from a diversity of stakeholders involved in the SEA process via a formally constituted Working Group. The Editors would like to acknowledge and sincerely thank all those who contributed to the development of Work Package 1. The peer reviewers played a critical role in providing valuable input and strengthening the quality and rigour of the chapters. Their names and affiliated institutions are also listed below:

- George Branch (University of Cape Town): Chapter 2 (Clark et al., 2025)
- Nina Steffani (Steffani Marine Environmental Consultant): Chapter 2 (Clark et al., 2025)
- Norbert Juergens (University of Hamburg): Chapter 3 (van Rooyen et al., 2025)
- Susie Brownlie (de Villiers Brownlie Associates): Chapter 4 (Botha, 2025)
- David Halkett (ACO Associates cc): Chapter 5 (Orton et al., 2025)
- Nina Rivers (Nelson Mandela University): Chapter 6 (Gammage et al., 2025)
- Paul Lochner (CSIR): Chapter 7 (Taljaard and Weerts et al., 2025)
- Cebile Nzuza (Transnet National Ports Authority): Chapter 7 (Taljaard and Weerts et al., 2025)

Working Group

NAME & SURNAME	AFFILIATION
Adam, Rob	Industrial Development Corporation
Adams, Sydney	Namakwa District Municipality
Booysen, Gratitude	Department of Cooperative Governance, Human Settlements and Traditional Affairs
Bosman, Dawid	Desalination Community of Practice
Bowers, Deon	Alexkor, Richtersveld Mining Company and Joint Venture (Alexkor RMC JV)
Brand, Reinhardt	Wilderness Foundation Africa
Brink, Zanne	Endangered Wildlife Trust (EWT)
Cilliers, Gerhard	Department of Forestry, Fisheries and the Environment (DFFE): Oceans & Coast
Cloete, Gary	Namakwa District Municipality
de Beer, D'Reull	The Nature Conservancy
de Wet, Annemarie	Communal Property Associations
de Wet, Peter	Richtersveld Nama Arts and Culture and Nama Indigenous Council
Dlomo, Sindiswa	DFFE: IEA
Fredericks, Feroza	Department of Cooperative Governance, Human Settlements and Traditional Affairs
Fredericks, Jacob	Richtersveld Nama Arts and Culture and Nama Indigenous Council
Fredericks, Martinus	!Aman Traditional Authority
Geldenhuys, Louise	Department of Agriculture, Environmental Affairs, Rural Development and Land Reform (DAERL)

Work Package 1: Strategic Environmental Assessment for the proposed Boegoebaai Port and Special Economic Zone

NAME & SURNAME	AFFILIATION
Green, Alfredo	Khai-Ma Local Municipality
Groenink, Melissa	Natural Justice
Hadebe, Nonkululeko	Transnet Corporate Centre
Harrison, Chantel	Department of Economic Development and Tourism (DEDAT)
Heydenrych, Reuben	Zutari
Heyns, Amelia	Natural Justice
Higgitt, Natasha	South African Heritage Resources Agency (SAHRA)
Hollenbach, Judith	Nama Khoi Local Municipality
Husselmann, Hermann	Vedanta
Karstens, Deidre	Kleinzee Holdings
Kaseke, Richmore	South African National Energy Development Institute (SANEDI)
Levington, Mike	Department of Trade, Industry and Competition (the dtic) - via the Green Hydrogen Panel
Links, Calumet	Stellenbosch University
Links, Gert	Richtersveld Nama Arts and Culture and Nama Indigenous Council
Losper, Wayne	Alexkor, Richtersveld Mining Company and Joint Venture (Alexkor RMC JV)
Louw, Hendrik	Private (Consulting)
Mabina, Paseka	DFFE: Climate Change and Air Quality Management
Mabuza, Charles	Infrastructure South Africa
Madlokazi Ntombovuyo	DFFE: Marine Protected Areas Unit
Malaza, Sabelo	DFFE: Integrated Environmental Authorisations (IEA)
Malebu, Tsamaelo	South African National Biodiversity Institute (SANBI)
Manuel, Jeffrey	South African National Parks (SANParks)
Marindili, Mpho	Department of Cooperative Governance, Human Settlements and Traditional Affairs
Mhlongo, Siyabonga	South Africa Wind Energy Association (SAWEA)
Mlilo, Mandy	Department of Science and Innovation (DSI)
Moganetsi, Simon	DFFE: Appeals & Strategic Environmental Instruments
Mogotsi, Cindy	Vedanta
Moses, Shaun	the Department of Trade, Industry & Competition
Mtshali, David	Natural Justice
Mtshali, Hlengiwe	South African National Biodiversity Institute (SANBI)
Nondaka, Lona	DFFE: Oceans & Coast (Coastal Pollution Management)
Ovies, Christopher	Conservation South Africa
Palmer, Dean	Natural Justice
Raimondo, Domitilla	South African National Biodiversity Institute (SANBI)
Ralston-Paton, Samantha	Birdlife South Africa
Rustomjee, Godrej	The African Climate Foundation
Seshupo, Olebile	Department of Mineral Resources and Energy (DMRE)
Singh, Avik	Infrastructure South Africa
Sookgrim, Santosh	South Africa Wind Energy Association (SAWEA)
Swart, Elsabe	Department of Agriculture, Environmental Affairs, Rural Development and Land Reform (DAERL)
Swartbooi, Leilani	Alexkor, Richtersveld Mining Company and Joint Venture (Alexkor RMC JV)
Swartbooi, Nicodemus	Communal Property Associations
Swartz, Jan	Nama Khoi Local Municipality
Theart, Martha	South African National Parks (SANParks)

Work Package 1: Strategic Environmental Assessment for the proposed Boegoebaai Port and Special Economic Zone

NAME & SURNAME	AFFILIATION
Tomsana, Aphelele	Transnet National Ports Authority (TNPA)
Tshilate, Livhuwani	Department of Cooperative Governance, Human Settlements and Traditional Affairs
Uys, Natalie	Department of Agriculture, Environmental Affairs, Rural Development and Land Reform (DAERL)
Van Den Berg, Stephan	SLR Consulting
Van Der Colff, Dewidine	South African National Biodiversity Institute (SANBI)
Van Neel, Bronwyn	Environmental Traits
Viljoen, Bennie	Northern Cape DWS
Warie, Riann	Department of Economic Development and Tourism (DEDAT)
Witi, Jongikhaya	DFFE: Climate Change and Air Quality Management
Wyngaard, Anthony	Vrywillige Vooraf en Voortdurende Ingeligde Toestemming (VVVT)
Young, Lara	Richtersveld Local Municipality
Zukulu, Thulisa	Trans Caledon Tunnel Authority (previously TNPA)