

## CONTACT DETAILS

<b>Name of Company</b>	<b>CES – Environmental and Social Advisory Services</b>
<b>Designation</b>	Executive Director: Consulting (South Africa)
<b>Profession</b>	Environmental consultant and financial accountant
<b>Years with firm</b>	23 (twenty three) + years
<b>E-mail</b>	a.carter@cesnet.co.za
<b>Office number</b>	+27 (0) 43 726-7809
<b>Mobile</b>	+27 (0) 83 379-9861
<b>Nationality</b>	South African
<b>Professional Body</b>	<ul style="list-style-type: none"><li>➤ SACNASP: South African Council for Natural Scientific Profession</li><li>➤ EAPASA: Environmental Assessment Practitioners Association of South Africa</li><li>➤ TSBCPA: Texas State Board of Certified Public Accountants (USA)</li><li>➤ AICPA: American Institute of Certified Public Accountants (USA)</li><li>➤ Exemplar Global: Environmental Management Systems Auditor (USA &amp; Australia)</li><li>➤ South African Institute of Chartered Accounts (SAICA) (completed traineeship)</li></ul>
<b>Key areas of expertise</b>	<ul style="list-style-type: none"><li>➤ Environmental Impact Assessment</li><li>➤ Marine Ecology</li><li>➤ Environmental and coastal management</li><li>➤ Waste management</li><li>➤ Climate change and emissions inventories</li><li>➤ Financial accounting and project feasibility studies (particularly aquaculture and tourism)</li><li>➤ Environmental management systems, auditing and due-diligence</li></ul>

## PROFILE

Alan has extensive training and experience in both financial accounting and environmental science disciplines with CES over the past 20 plus years and prior to that for 8 years with international accounting firms in South Africa and the USA. He holds a PhD in marine ecology and BCom Honours degree in financial accounting and auditing and completed his articles with the South African Institute of Chartered Accounts (SAICA). He is also a member of the American Institute of Certified Public Accountants (licensed in Texas) and is a certified ISO14001 EMS auditor with Exemplar Global (formerly the American National Standards Institute). Alan has been responsible for leading and managing numerous and varied environmental and financial consulting projects over the past 33 years.

**EMPLOYMENT  
EXPERIENCE**

- January 2001 – Present: Executive Director Consulting (Coastal & Environmental Services, East London, South Africa).
- January 1999 – December 2001: Manager (Arthur Andersen LLP, Public Accounting Firm, Chicago, Illinois USA).
- December 1996 – December 1998: Senior Accountant/Auditor (Ernst & Young LLP, Public Accounting Firm, Austin, Texas, USA).
- January 1994 – December 1996: Senior Accountant/Auditor (Ernst & Young, Charteris & Barnes, Chartered Accountants, East London, South Africa).
- July 1991 – December 1994: Associate Consultant (Coastal & Environmental Services, East London, South Africa).
- March 1989 – June 1990: Data Investigator (London Stock Exchange, London, England, United Kingdom).

**ACADEMIC  
QUALIFICATIONS**

- Ph.D. Plant Science (Marine) - Rhodes University 1987
- B. Compt. Hons. Accounting Science - University of South Africa 1997
- B. Com. Financial Accounting & Auditing - Rhodes University 1995
- B.Sc. Hons. Plant Science - Rhodes University 1983
- B.Sc. Plant Science & Zoology - Rhodes University 1982

**COURSES**

- Completed articles with the South African Institute of Chartered Accounts (SAICA) (1996).
- Environmental Management Systems Lead Auditor Training Course - American National Standards Institute and British Standards Institute (2000).
- ISO 14001:2015 Implementing Changes - British Standards Institute (2015)
- Numerous other workshops and training courses.

**CONSULTING  
EXPERIENCE**

**Environmental Impact Assessment**

- Managed numerous environmental impact assessment (EIA) projects (estimated at over 200 EIAs) and prepared EIA reports in terms of relevant EIA legislation and regulations (including World Bank and IFC Standards) for development proposals including: bulk water and waste water, roads, electrical, mining, ports, aquaculture, renewable energy (over 20 solar facilities and over 20 wind farms), industrial processes, water schemes, housing developments, golf estates and resorts, etc. (2002 – present).
- Projects have also included preparation of applications in terms of other statutory requirements, such as water-use and mining licence /permit applications.

**Feasibility and Pre-feasibility Assessments**

- Managed projects to develop pre-feasibility and feasibility assessments for various projects, including various aquaculture and tourism developments, infrastructure projects, etc.
- Managed project for the East London Industrial Development Zone (ELIDZ) to develop a Conceptual Framework for a Mariculture Zone within the ELIDZ (2009).
- Managed the following aquaculture feasibility studies:
  - Mariculture Zone at Qolorha on the South African Wild Coast (2013).
  - Mariculture Zone within the Coega Industrial Development Zone (2014).
  - Aquaponics Zone within the Coega Industrial Development Zone (2017).
  - Finfish cage farming within the Port of Richards Bay (2019).

- Multispecies aquaculture hatchery and demonstration facility in the Eastern Cape Province (2019).

#### **Strategic Environmental Assessment**

- Managed Strategic Environmental Assessment (SEA) project toward the development of a Biofuel Industry in the Eastern Cape Province of South Africa (2016)
- Managed Strategic Environmental Assessment (SEA) projects for three South African ports (2006 – 2024).
- Managed Strategic Environmental Assessment (SEA) projects for five (5) local municipalities in the Eastern Cape as part of the municipal Spatial Development Framework plans (2005).
- Involved in the financial assessment of various land-use options and carbon credit potential as part of a larger Strategic Environmental Assessment (SEA) for assessing forestry potential in Water Catchment Area 12 in the Eastern Cape of South Africa (2006).

#### **Climate change, emissions trading and renewable energy**

- Developed climate risk assessments including adaptation and mitigation strategies for various projects, including: mining, water utilities, wind and solar farms and biofuel projects.
- Provided specialist peer review services for National Department of Environmental Affairs relating to climate change impact assessments for large infrastructure projects (2018).
- Conducted climate change impact assessment for a proposed coal-fired power station in Africa (2018).
- Participated in the development of a web-based Monitoring & Evaluation (M&E) system for climate change Mitigation and Adaptation in South Africa for National Department of Environmental Affairs (2016).
- Managed project to develop a Climate Change Strategies for a Metropolitan Municipality and two district municipalities in the Eastern Cape Province (2011-2013).
- Conducted specialist carbon stock and greenhouse gas emissions impact and life cycle assessment as part of the Environmental, Social and Health Impact Assessment for a proposed sugarcane to ethanol project in Sierra Leone (2010) and a proposed Jatropha bio-diesel project in Mozambique (2010).
- Managed project to develop the Eastern Cape Province Climate Change Strategy (2010).
- Managed project to develop a Transnet National Ports Authority Climate Change Risk Strategy (2009).
- Participated in a project to develop a Renewable Energy roadmap for the East London Industrial Development Zone (ELIDZ) (2013).
- Participated in a project for the East London Industrial Development Zone (ELIDZ) and Eastern Cape Government to prepare a Renewable Energy Strategy (2009).
- Contributed to the development of Arthur Andersen LLP's International Climate Change and Emissions Trading Services (2001).
- Conducted carbon credit (Clean Development Mechanism - CDM) feasibility assessment for a variety of renewable energy projects ranging from biogas to solar PV.
- Participated in the preparation of CDM applications for two solar PV projects in the Eastern Cape.

#### **Waste Management**

- Managed various projects to obtain waste licences in terms of relevant South African legislation and regulations including landfill sites, transfer stations and waste-to-energy projects.
- Managed projects to develop Integrated Waste Management Plans for eighteen (18) local municipalities and three (3) District Municipalities in the Eastern Cape Province (2008-2016).
- Managed a project to develop a zero-waste strategy for a community development in the Eastern Cape Province (2010).
- For three consecutive years, managed elements of the evaluation of the environmental financial reserves of the three largest solid waste companies in the USA (Waste Management, Inc., Republic Services, Inc., Allied Waste, Inc.) and number of smaller waste companies, as part of the annual financial audit process for SEC reporting purposes. Ensured compliance with RCRA and CERCLA environmental regulations.
- Managed elements of the evaluation of the environmental financial reserves of the largest hazardous waste company in the USA (Safety-Kleen, Inc.), as part of the audit process for SEC reporting purposes. Ensured compliance with RCRA and CERCLA environmental regulations.

**Environmental auditing and compliance**

- Conducted environmental legal compliance audit for various large Transnet Freight Rail facilities (2018).
- Lead auditor for numerous Environmental Control Officer (ECO) projects, including construction of wind and solar farms, road infrastructure, bulk water and sewage infrastructure, port infrastructure, cemeteries, etc. (2001-present).
- Participated in numerous ISO14001 Environmental Management System (EMS) audits for large South African corporations including SAPPI, BHP Billiton, SAB Miller, Western Platinum Refinery, Dorbyl Group and others (2002-2003).
- Reviewed the SHE data reporting system of International Paper, Inc. (IP) for three successive years as part of the verification of the IP SHE Annual Report, which included environmental assessments of 12 IP pulp and paper mills located throughout the USA (1999-2001).

**Environmental Due Diligence and Business Risk**

- Conducted numerous environmental and social due diligence (ESDD) audits for various projects including wind farms, solar projects, agro-industry projects, against national legislation, IFC Performance Standards and Equator Principles (2010 – 2024).
- Participated in project on behalf of the CDC Group (UK) to conduct a due diligence on the ESG systems and mechanisms in place for an agro-industry investment entity with considerable agricultural investments throughout Africa (2021).
- Conducted environmental due diligence projects on behalf of the German Development Bank for a forestry pulp and paper operation in Swaziland (2010) and for a large diversified South African agricultural/agro-processing company (2011).
- Managed project for the Transnet National Ports Authority to identify the environmental risks and liabilities associated with the operations of the Port of Durban as part of a broader National initiative to assess business and financial risks relating to environmental management (2006).
- Conducted sustainability and cost/benefit analysis of various waste-water treatment options (including a marine pipeline at Hood Point) for the West Bank of East London (2004).

- Conducted analysis of permit fees and application processing costs for off-road vehicle use on the South African coastline for the Department of Environmental Affairs and Tourism, Marine & Coastal Management (2003).
- Involved in the determination of the historical cost element of environmental remediation insurance claims for a number of multinational companies, including Dow Chemicals, Inc. and International Paper, Inc.
- Evaluated the environmental budgeting process of the US Army and provided best practice guidance for improving the process.

#### **Policy and Guidelines**

- Managed project to develop an Estuarine Management Plan for the Quinera Estuary for the Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (2023).
- Development of Administration / Application Fee Structure for the Reclamation of Land, Coastal Use Permits, Coastal Waters Discharge Permits, Dumping of Waste at Sea, Off-Road Vehicle Regulations Promulgated in Terms of the National Environmental Management Act: Integrated Coastal Management Act (Act No. 24 Of 2008) (2017).
- Managed project to develop an Estuarine Management Plan for the Buffalo River Estuary for the National Department of Environmental Affairs (2017).
- Managed project to develop a Coastal Management Programme for Amathole District Municipality, Eastern Cape (2016).
- Managed project to develop a sustainability diagnostic report as part of the development of the Eastern Cape Development Plan and Vision 2030 (2013).
- Managed project for the Department of Environmental Affairs and Tourism, Marine & Coastal Management to determine the cost implications associated with the implementation of the Integrated Coastal Management Act (2007).
- Managed project to develop a Conservation Plan and Municipal Open Space System (MOSS) for Buffalo City Municipality (2007)
- Managed project to develop a Sanitation Policy and Strategy for Buffalo City Municipality, Eastern Cape (2006).
- Managed project to develop an Integrated Environmental Management Plan and Integrated Coastal Zone Management Plan for Buffalo City Municipality, Eastern Cape (2005).
- Managed projects to develop and implement an Environmental Management System (EMS) for the Chris Hani and Joe Gqabi District Municipalities in the Eastern Cape generally in line with ISO14001 EMS standards (2005).
- Managed project to develop a State of the Environment Report and Environmental Implementation Plans for Amathole, Chris Hani, OR Tambo and Joe Gqabi District Municipalities in the Eastern Cape Province (2010).
- Conducted analysis of permit fees and application processing costs for off-road vehicle use on the South African coastline for the Department of Environmental Affairs and Tourism, Marine & Coastal Management (2003).

#### **Environmental & Social Management Systems**

- Managed project to develop Environmental & Social Management Systems (ESMS) in line with IFC Performance Standards for a 5MW hydro-electric project in South Africa. (2023).
- Managed project to develop Environmental & Social Management Systems (ESMS) in line with IFC Performance Standards for an agricultural equipment supplier in Malawi on behalf of Norfund (2022).

- Managed projects to develop Environmental Management Systems (EMS) in line with ISO14001 EMS Standard for a South African water utility (2019).
- Managed projects to develop Environmental & Social Management Systems (ESMS) in line with IFC Performance Standards for four (4) wind farms in South Africa (2015-2018).
- Managed project to develop an Environmental & Social Management System (ESMS) in line with IFC Performance Standards for a telecoms company in Zimbabwe on behalf of the German Development Bank (2013).
- Conducted Environmental Management System (EMS) reviews for a number of large US corporations, including Gulfstream Aerospace Corporation.

**Public financial accounting**

- While with Arthur Andersen LLP (Chicago, Illinois, USA), involved in environmental liability valuations for NYSE and NASDAQ listed companies, for SEC annual reporting requirements.
- While with Ernst & Young LLP, (Austin, Texas, USA), functioned as lead financial auditor for various public and private companies, mostly in the technology business segment of up to \$200 million in annual sales. Client experience included assistance in a \$100 million debt offering, a \$100 million IPO and SEC annual and quarterly reporting requirements.
- Completed three years of articles (training contract) in fulfilment of the certification requirements of the South African Institute of Chartered Accountants which included auditing, accounting and preparation of tax returns for many small to medium sized commercial entities.

**PUBLICATIONS**

**Refereed Publications:**

- Carter, A.R. 1985. Reproductive morphology and phenology, and culture studies of *Gelidium pristoides* (Rhodophyta) from Port Alfred in South Africa. *Botanica Marina* 28: 303-311.
- Carter, A.R. 1993. Chromosome observations relating to bispore production in *Gelidium pristoides* (Gelidiales, Rhodophyta). *Botanica Marina* 36: 253-256.
- Carter, A.R. and R.J. Anderson. 1985. Regrowth after experimental harvesting of the agarophyte *Gelidium pristoides* (Gelidiales: Rhodophyta) in the eastern Cape Province. *South African Journal of Marine Science* 3: 111-118.
- Carter, A.R. and R.J. Anderson. 1986. Seasonal growth and agar contents in *Gelidium pristoides* (Gelidiales, Rhodophyta) from Port Alfred, South Africa. *Botanica Marina* 29: 117-123.
- Carter, A.R. and R.H. Simons. 1987. Regrowth and production capacity of *Gelidium pristoides* (Gelidiales, Rhodophyta) under various harvesting regimes at Port Alfred, South Africa. *Botanica Marina* 30: 227-231.
- Carter, A.R. and R.J. Anderson. 1991. Biological and physical factors controlling the spatial distribution of the intertidal alga *Gelidium pristoides* in the eastern Cape Province, South Africa. *Journal of the Marine Biological Association of the United Kingdom* 71: 555-568.

**Published reports:**

- Water Research Commission. 2006. Profiling Estuary Management in Integrated Development Planning in South Africa with Particular Reference to the Eastern Cape. Project No. K5/1485.
- Turpie J., N. Sihlophe, A. Carter, T. Maswime and S. Hosking. 2006. Maximising the socio-economic benefits of estuaries through integrated planning and management: A

rationale and protocol for incorporating and enhancing estuary values in planning and management. Un-published Water Research Commission Report No. K5/1485

**Conference Proceedings:**

- Carter, A.R. 2002. Climate change and emission inventories in South Africa. Invited plenary paper at the 5th International System Auditors Convention, Pretoria. Held under the auspices of the South African Auditor & Training Certification Association Conference (SAATCA).
- Carter, A.R. 2003. Accounting for environmental closure costs and remediation liabilities in the South African mining industry. Proceedings of the Mining and Sustainable Development Conference. Chamber of Mines of South Africa, Vol. 2: 6B1-5
- Carter, A.R. and S. Fergus. 2004. Sustainability analysis of wastewater treatment options on the West Bank of East London, Buffalo City. Proceedings of the Annual National Conference of the International Association for Impact Assessment, South African Affiliate: Pages 295-301.
- Carter, A., L. Greyling, M. Parramon and K. Whittington-Jones. 2007. A methodology for assessing the risk of incurring environmental costs associated with port activities. Proceedings of the 1st Global Conference of the Environmental Management Accounting Network.
- Hawley, GL, AR McMaster and AR Carter. 2009. Carbon, carbon stock and life-cycle assessment in assessing cumulative climate change impacts in the environmental impact process. Proceedings of the Annual National Conference of the International Association for Impact Assessment, South African Affiliate.
- Hawley, GL, AR McMaster and AR Carter. 2010. The Environmental and Social Impact Assessment and associated issues and challenges. African, Caribbean and Pacific Group of States (ACP), Science and Technology Programme, Sustainable Crop Biofuels in Africa.
- Carter, AR. 2011. A case study in the use of Life Cycle Assessment (LCA) in the assessment of greenhouse gas impacts and emissions in biofuel projects. 2nd Environmental Management Accounting Network- Africa Conference on Sustainability Accounting for Emerging Economies. Abstracts: Pages 69-70.

**CERTIFICATION**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.

**ALAN ROBERT CARTER**

Date: March 2024