Eco Route
ENVIRONMENTAL CONSULTANCY
REGISTRATION NO. 1998/031976/23

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Draft BAR: Appendix F – DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT (Draft EMPr)

In terms of the **National Environmental Management Act** (Act No. 107 of 1998, as amended) & 2014 Environmental Impact Regulations (as amended, 2017) for:

Proposed expansion of development footprint on Erf 1220 located within 100 meters of the high-water mark of the sea
St Francis Bay, Kouga Local Municipality
EC08/C/LN1/M/51-2024
For 30-day review and comment: 28 October – 28 November 2024

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DATE:	28 October 2024

ENVIRONMENTAL MANAGEMENT PROGRAMME REQUIREMENTS:

Appendix 4 of Regulation 982 of the 2014 EIA Regulations (as amended, 2017) published in terms of the NEMA, contains the required contents of an Environmental Management Programme (EMP). The table below serves as a summary of how these requirements were incorporated into this EMPR:

An EMPr must comply with section 24N of the Act and include:-

(a) Details of – (i) The EAP who prepared the EMPr; and (ii) The expertise of the EAP to prepare an EMPr, including a curriculum Vitae;	This EMPr was prepared by Claire De Jongh. Please see attached CV of the EAP (Annexure 3).
(b) A detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description;	Section 5 - ENVIRONMENTAL MANAGEMENT PROGRAMME
(c) a map at an appropriate scale which superimposes the proposed activity, it associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers;	Annexure 1
(d) A description of the impact management outcomes, including management statements, identifying the impacts and risks that need to be avoided, managed and mitigated as identified through the environmental impact assessment process for all phases of the development including – (i) planning and design; (ii) pre-construction activities; (iii) construction activities; (iv) rehabilitation of the environment after construction and where applicable post closure; and (v) where relevant, operation activities;	Draft BAR
(f) a description of proposed impact management actions, identifying the manner in which the impact management outcomes contemplated in paragraph (d) will be achieved, and must, where applicable, include actions to – (i) avoid, modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation; (ii) comply with any prescribed environmental management standards or practises; (iii) comply with any applicable provisions of the Act regarding closure, where applicable; and (iv) comply with any provisions of the Act regarding financial provision for rehabilitation, where applicable;	Section 5 - ENVIRONMENTAL MANAGEMENT PROGRAMME
(g) the method of monitoring the implementation of the impact management actions contemplated in paragraph (f);	Section 5 - ENVIRONMENTAL MANAGEMENT PROGRAMME Section 6 -EMP Targets – Planning, Construction, Operations Section 7 - COMPLIANCE WITH THE EMPr
(h) the frequency of monitoring the implementation of the impact management actions contemplated in paragraph (f);	Section 6 -EMP Targets – Planning, Construction, Operations Section 7 - COMPLIANCE WITH THE EMPr
(i) an indication of the persons who will be responsible for the implementation of the impact management actions;	Section 6 of draft EMPr
(j) the time periods within which the impact management actions contemplated in paragraph (f) must be implemented;	Section 5 - ENVIRONMENTAL MANAGEMENT PROGRAMME

	Section 6 -EMP Targets – Planning, Construction, Operations Section 7 - COMPLIANCE WITH THE EMPr
(k) the mechanism for monitoring compliance with the impact management actions contemplated in paragraph (f);	Section 6 -EMP Targets – Planning, Construction, Operations Section 7 - COMPLIANCE WITH THE EMPr
(l) a program for reporting on compliance, taking into account the requirements as prescribed by Regulations;	Section 4 - REPORTING PROCEDURES Section 7 - COMPLIANCE WITH THE EMPr
(m) an environmental awareness plan describing the manner in which – (i) the applicant intends to inform his or her employees of any environmental risk which may result from their work; and (ii) risks must be dealt with in order to avoid pollution or the degradation of the environment; and	Section 7 - COMPLIANCE WITH THE EMPr Section 10. - DRAFT STAFF / RESIDENT CONDUCT CONTROL AND INFORMATION SHEET
(n) any specific information that may be required by the competent authority.	Draft BAR

Glossary of Terms

BAR	**Basic Assessment Report –** A tool used by the EAP to submit to the competent authority if listed activities is triggered in Regulations GNR 327 and GNR 324 as per NEMA to make a decision regarding a proposed development.
DFFE	**Department Forestry Fisheries and Environment**– the national authority for sustainable environmental management and integrated development planning.
DEDEAT	Eastern cape Department of Economic Development, Environmental Affairs and Tourism
CBA	**CBA Critical Biodiversity Area** – Areas in a natural condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure.
CMP	**Coastal Management Plan**
EAP	**Environmental Assessment Practitioner –** An EAP and a specialist, appointed in terms of regulation 12(1) or 12(2) must – (a) be independent. (b) Have expertise in conducting environmental impact assessments or undertaking specialist work as required, including knowledge of the Act, these regulations and any guidelines that have relevance to the proposed activity. (c) Ensure compliance with these Regulations (d) Perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the application. (e) Take into account, to the extent possible, the matters referred to in regulation 18 when preparing the application and any report, plan or document relating to the application; and (f) Disclose to the proponent or applicant, registered and affected parties and the competent authority all material information in the possession of the EAP and, where applicable, the specialist, that reasonably has or may have the potential of influencing – i. Any decision to be taken with respect to the application by the competent authority in terms of these regulations; or ii. The objectivity of any report, plan or document to be prepared by the EAP or specialist, in terms of these Regulations for submission to the competent authority; unless access to that information is protected by law, in which case it must be indicated that such protected information exists and is only provided to the competent authority. (2) In the event where the EAP or specialist does not comply with sub regulation (1)(a), the proponent or applicant must, prior to conducting public participation as contemplated in chapter 5 of these regulations, appoint another EAP or specialist to externally review all work undertaken by the EAP or specialist, at the applicants cost. (3) An EAP or specialist appointed to externally review the work of an EAP or specialist as contemplated in sub regulation (2), must comply with sub regulation (1).
ECO	**Environmental Control Officer** – A site agent who needs to ensure that all environmental authorisation and conditions are adhered to during the construction phase of the project
EIA	**Environmental Impact Assessment**
EMPr	**Environmental Management Programme –** can be **defined** as "an **environmental management** tool used to ensure that undue or reasonably avoidable adverse impacts of the construction, operation and decommissioning of a project are prevented; and that the positive benefits of the projects are enhanced".

ESA	**Ecological Support Area –** Areas that are not essential for meeting biodiversity targets, but that play an important role in supporting the functioning of Pas or CBAs, and are often vital for delivering ecosystem services.
KLM	**Kouga Local Municipality**
NEMA	**National Environmental Management Act (Act 107 of 1998) as amended 2017** – national environmental legislation that provides principles for decision-making on matters that affect the environment.
PA	**Protected Area -** A protected area is an area of land or sea that is formally protected by law and managed mainly for biodiversity conservation. Protected areas recognised in the National Environmental Management: Protected Areas Act (Act 57 of 2003) (hereafter referred to as the Protected Areas Act) are considered formal protected areas in the NPAES. This is a narrower definition of protected areas than the International Union for Conservation of Nature (IUCN) definition.1 The NPAES distinguishes between land-based protected areas, which may protect both terrestrial and freshwater biodiversity features, and marine protected areas.
SANBI	**South African National Biodiversity Institute**
SBDM	**Sarah Baartman district Municipality**

Contents

1. INTRODUCTION

In accordance with the Integrated Environmental Management Guidelines published by the Department of Forestry, Fisheries, and the Environment (DFFE) in 1992, the purpose of an Environmental Management Programme (EMPr) is "to describe how negative environmental impacts will be managed, rehabilitated or monitored and how positive impacts will be maximised".

Section 28 of NEMA (National Environmental Management Act, Act 107 of 1998) states that:
Duty of care and remediation of environmental damage -
"(1) Every person who causes, has caused, or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot be reasonably avoided or stopped, to minimise and rectify such pollution or degradation of the environment"

This draft EMPr must be read in conjunction with the draft Basic Assessment Report and all related appendices dated October 2024. All recommendations, relevant conditions and mitigation measures provided in these documents have been included in the EMPr and must be adhered to.

This EMPr must form an integral part of the contract documents, as it outlines the methodology & duties required so that the project objectives can be achieved in an environmentally sustainable manner; with particular reference to the prevention and mitigation of environmental impacts caused by planning, construction and operational phases and activities associated with this project.

These requirements will have a financial impact on the project's costings.

This EMPr is a dynamic document that may require updating during the project phases in response to new and changing circumstances to mitigate environmental impacts.
Relevant changes and updated EMPr must be submitted to the DEDEAT for approval.

1.2 Purpose of the EMPr

The purpose of this EMPr is to ensure that the negative environmental impacts of the proposed activities are managed, mitigated and kept to a minimum during the planning, construction and operational phases of the proposed development. The EMPr focuses on providing practical measures to avoiding negative environmental impacts and enhance positive environmental impacts where possible.
Once the EMPr is approved by DEDEAT it is seen as a legal binding document on the following affected parties:

1 Project Applicant.
2 Project planning team including for example, contractor, architect
3 All contractors and subcontractors

Copies of this EMPr must be kept on site and all senior personnel are expected to familiarise themselves with the content of this EMPr.
Contractor method statements must be aligned to relevant conditions in the EMPr and any conditions of the EA (if attained).
It is suggested that the EMPr be reviewed on a 10 yearly basis if required. Should any amendments need to be made during operational phase, written authorisation should be obtained from DEDEAT.

1.2 The Polluter-Pays Principle

This principle provides for "the costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimizing further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment." The Polluter Pays Principle will be rigorously applied throughout the construction phase of this project.

2. PROJECT DETAILS

The project details are provided in the Basic Assessment Report and is not repeated here.
The main impacts associated with the proposed activity includes the following:

- Disturbance to vegetation
- Possible impacts on paleontology resources
- Dust impacts
- Incorrect management of waste generated
- Positive impact on socio-economic conditions as a result of employment opportunities
- Positive impact on socio-economic conditions as a result of increased property value

The EMPr contains all the mitigation measures to prevent / reduce negative environmental impacts and enhance positive impacts.

3. LEGISLATIVE REQUIREMENTS

3.1 Signing of the EMPr

The acknowledgement form at the back of the approved EMPr is to be signed by the holder of the Environmental Authorisation (the Applicant), the Contractor, and the ECO; acknowledging that all parties are familiar with the requirements of the EMPr. All employees are to be made aware of the conditions as contained in the EMPr as well as the contractual conditions relating to the environment as contained in the contract document.

3.2 Legislation

Of importance are all national, provincial and municipal by-laws and regulations
Relevant environmental legislation and guidelines:

- *National Environmental Management Act (Act 107 of 1998) and EIA Regulations*
- *National Environmental Management Act: Biodiversity Act (Act 10 of 2004)*
- *Environmental Conservation Act (Act 73 of 1989)*
- *Nature and Environmental Conservation Ordinance No 19 of 1974*
- *National Heritage Resources Act 25 of 1999*
- *National Environmental Management: Integrated Coastal Management Act, 2008*
- *Coastal Management Programme SBDM (draft)*
- *Kouga Spatial Development Framework*

Statutes are amended periodically; it is the Applicant's responsibility to identify legislation relevant to the proposed activity

3.3. Project Responsibilities

Responsibility for the implementation of the EMPr lies with the Applicant who must retain the services of a suitably experienced Environmental Control Officer (ECO) who will monitor the construction processes and activities periodically.

The project Applicant will be responsible for the following:

- Adhering to the approved EMPr.
- Ensure that all employed Contractors and Architects are aware of and understand the conditions of the EMPr.
- Has the right to remove any person or appointed contractors or personnel from site if the contravene with the EMPr.
- Appoint an external Environmental Control Officer and palaeontologist
- The holder of the Environmental Authorisation (if attained) must notify the competent authority of the commencement of activities 14 days prior to such commencement taking place.

The ECO's responsibilities must include, *inter alia*:

- Carry out preconstruction, monthly, post construction audit to on compliance with EMPr and conditions of EA
- Guide, advise and consult the relevant authority on environmental issues during construction.
- Guide, advise and consult any contractors who will be involved in this project.
- Revise the EMPr as required and inform the relevant parties of the changes.
- Ensure staff are adequately trained on environmental responsibilities as applicable

The responsibilities of the Design team and Contractors include but are not limited to the following:

- Adhere with the conditions and recommendations of the EMPr or any other legally binding documentation.
- Prevent actions that may cause harm to the environment.
- Correct non compliances identified during audits
- Be responsible for any remedial activities in response to an environmental incident within their scope of influence.
- Ensure compliance of all site personnel and / or visitors to the EMPR and any other authorisations.

Fines for noncompliance of EMPr to be predetermined by Project Applicant and contractor

4. REPORTING PROCEDURES

4.1 Documentation

The following documentation must be kept on site in order to record compliance with the EMPr:

An Environmental File which includes:

- Copy of the EMPr;
- Copy of the EA;
- Permits if required
- Reports submitted to ECPHRA
- Communications Register – including records of complaints,
- Audit reports including written Corrective Action Instructions.
- Incident Register

- Waste Documentation such as, but not necessarily limited to: Waste Disposal records
- Service slips of any chemical ablution facilities
- Material Safety Data Sheets (MSDSs) for any hazardous substances

4.2. Incident / complaint Register

The Applicant will put in place an Environmental Register and will ensure that the following information is recorded for all complaints / incidents:

- Nature of complaint / incident.
- Causes of complaint / incident.
- Party/parties responsible for causing complaint / incident.
- Immediate actions undertaken to stop / reduce / contain the causes of the complaint / incident.
- Additional corrective or remedial action taken and/or to be taken to address and to prevent reoccurrence of the complaint / incident.
- Timeframes and the parties responsible for the implementation of the corrective or remedial actions.
- Procedures to be undertaken and/or penalties to be applied if corrective or remedial actions are not implemented.
- Copies of all correspondence received regarding complaints/incidents.

4.3. Monthly Audit Report and Non-conformance report if required

Monthly external audits recommended for duration of construction including pre-construction and post construction report. Conditions of EA (if issued) and EMPr requirements will be audited including the EM file.
Non compliances will be identified and actions / recommendations provided with timeframes to address the NC.
A Non-Conformance Report (NC) will be issued to the Applicant as a final step towards rectifying a failure in complying with a requirement of the EMPr. This will be issued by the ECO to the Applicant in writing. Preceding the issuing of a NCR, the Applicant must be given an opportunity to rectify the issue.

Should the ECO assess an incident or issue and find it to be significant (e.g. non-repairable damage to the environment), it will be reported to the relevant authorities and immediately escalated to the level of a NCR. The following information should be recorded:

- Details of non-conformance;
- Any equipment involved;
- Any chemicals or hazardous substances involved;
- Work procedures not followed;
- Nature of the risks and other physical aspects;
- Actions agreed to by all parties following consultation to adequately address the non-conformance in terms of specific control measures and should take the hierarchy of controls into account;
- Agreed timeframe by which the actions documented in the NCR must be carried out; and
- ECO should verify that the agreed actions have taken place by the agreed completion date, when completed satisfactorily; the ECO and Applicant should sign the Close-Out portion of the Non-Conformance Form and file it with the contract documentation.

4.4. Emergency Response

The Applicants environmental emergency procedures must ensure appropriate responses to unexpected / accidental actions / incidents that could cause environmental impacts.

The Environmental Emergency Response Plan is separate to the Health and Safety Plan as it is aimed at responding specifically to environmental incidents and must ensure and include the following:

- Employees shall be adequately trained in terms of incidents and emergency situations;
- Details of the organisation (i.e. manpower) and responsibilities, accountability and liability of personnel;
- A list of key personnel and contact numbers;
- Details of emergency services (e.g. the fire department / on-site fire detail, spill clean-up services) shall be listed;
- Internal and external communication plans, including prescribed reporting procedures;
- Actions to be taken in the event of different types of emergencies;
- Incident recording, progress reporting and remediation measures to be implemented; and
- Information on any hazardous materials, including the potential impact associated with each, and measures to be taken in the event of accidental release.

5. ENVIRONMENTAL MANAGEMENT PROGRAMME

It is important that mitigation measures are strictly adhered to and that all measures are taken to reduce the disturbance footprint wherever possible to minimize negative impacts.

1. PLANNING AND DESIGN

The proposed development is a proposed extension of a house located at Erf 1220, Sea Vista, St Franics Bay. The Erf falls within 100 meters of the HWM of the sea and therefore requires an environmental authorisation to be issued as part of the planning phase of the project. Part of the EA process is the draft EMPR which requires approval form the CA (DEDEAT). If the EA is obtained, then the EMPr is legally binding, and the applicant must ensure that EM requirements are included in the budget and planning and construction process. If this is not done, then the EMPr will not be implemented and before mitigation impacts can be expected to occur.

All Phases

Planning – Planning Team

- Ensure an Environmental Management File is put in place to contain all documents / report which pertain to the relevant conditions of the planning, construction and operational phases (e.g. EA, EMPr, permits, waste disposal certificates, audit reports etc.)
- Ensure all preconstruction requirements are in place prior to construction
- Ensure layouts, designs and accompanying engineering drawing approved
- Construction method statements must be aligned to mitigation measures and conditions of the Environmental Authorisation (if attained)
- Construction team site officer to assist with daily environmental management on site and compliance with the CEMP and conditions of the EA (if attained)
- Appoint a suitably qualified external environmental control officer to ensure environmental management requirements are met by carrying out monthly external audits and providing any recommendations.
- Suitable budget to be assigned to environmental management requirements for construction and operational phase
- Operational management plans are to be aligned to mitigation measures and conditions of the Environmental Authorisation (if attained)

2. HERITAGE ARCHAEOLOGY AND PALEONTOLOGY

Planning Phase - Planning Team

- Notice of commencement of development and a project specific heritage chance finds procedure (CFP) to be submitted to ECPHRA by the responsible individual (ESO/ECO etc.), before construction starts.

Construction Phase - Planning Team:

- Heritage induction / Pre-construction training and proof thereof to be shared with ECPHRA
- Archaeological Sites may include:
    - Dense accumulations of marine shell – evidence of prehistoric shell midden
    - Concentrations of shell associated with pieces of bone, pottery and stone artefacts
    - Concentrations of fossilized bone
    - Concentrations of blue and white china, pieces of irons, coins etc.
    - Human remains including burials
- Monitoring during excavations by a palaeontologist. Reports to be shared with ECPHRA.
- Final heritage compliance report to be submitted to ECPHRA, upon completion of the project.

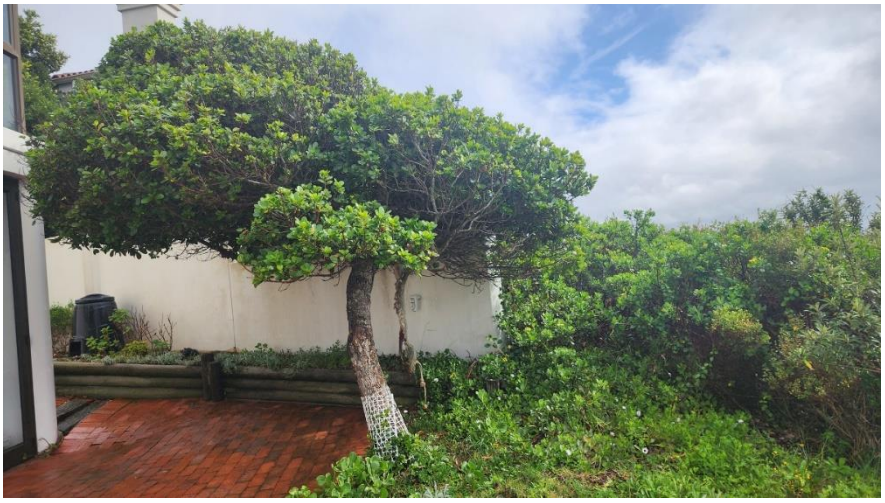
Operational Phase - Operational and Planning Teams

- Operational Phase – follow procedure if any artefacts discovered by residents in operational phase

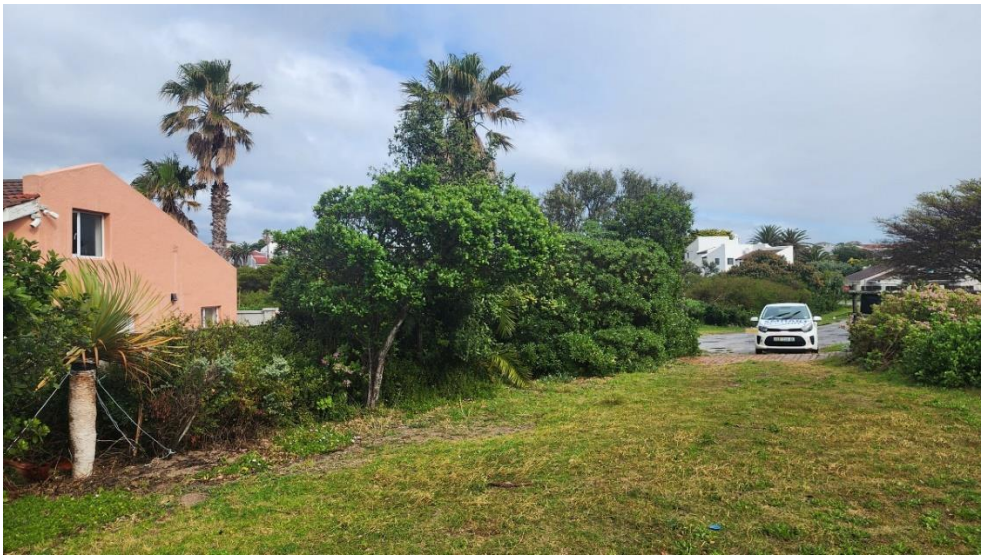
3. Coastal Environment and Terrestrial fauna and flora and AIS

Planning Phase - Planning – Design Team

- The pool decking area has been designed to ensure the Milkwood growing on eastern section is not disturbed; the tree must be cordoned off during construction. Milkwood on western section must be cordoned off and permits applied for disturbance if required prior to construction.
- ECO to carry out search of indigenous vegetation prior to start of construction.
- Any permits required for disturbance / removal sensitive flora species of conservational concern to be in place prior to construction. Allow 3 months for this process. (DEDEAT – PCNO permits / DAFF – protected trees permit)
- Any SCC and protected trees that must not be disturbed by construction activities must be marked and cordoned off.
- Any plants that will be kept for landscaping to be removed, bagged and placed in area on site which will not be disturbed by construction (i.e. south section)
- Make use of building method & materials that can withstand the harsh coastal elements



Milkwood: Eastern, seaward side (accommodated in layout design)



Milkwood tree: front garden on west side wall (not likely to be disturbed)

Construction activities – Construction Team

- Gathering of firewood / plants adjacent to the sites is not permitted. Contractual fines to be imposed on any employee who is found attempting to remove indigenous flora from surrounding open space areas.
- Keep construction activities within perimeter of erf; No go-areas includes coastal area beyond eastern boundary. Construction netting to be used to clearly indicate the eastern boundary and clearly marked as no-go area.
- No stockpiling / laydown areas / waste management is to occur outside the erf.
- Materials used during construction must be sourced and transported responsibly to minimise the risk new invasive plants.
- Any alien invasive plant species and weeds must be removed as soon as detected and placed in bag for offsite disposal.
- Record of permits for removal / transplanting of sensitive species of conservational concern / protected trees to be kept on record in EM file for audit purposes.
- Vegetation removed must be suitably stockpiled in area that will not be disturbed by construction for use in rehabilitation and landscaping on the site.
- No animals are to be harmed or killed during construction activities. Contractual fines to be imposed on any employee who is found attempting to harm fauna on site or in surrounding areas.
- Check excavations to ensure no trapped animals
- If any animals are seen on site, a photo or a video should be taken if possible (to assists in identification) and all fauna encountered on site should be reported to the ECO immediately. Examples:
    - An animal is harmed or compromised in any way during construction.
    - Ground-dwelling animals unearthed during earthworks (e.g. moles).
    - Any animal with limited mobility is found on site (e.g. tortoises, chameleons).
    - Potentially dangerous animal is encountered (e.g. snakes, scorpions); assistance with snake removals/relocations, identifications, or bite treatment contact the African Snakebite Institute.

Operational Phase

- Vegetation adjacent to the property must not be disturbed post-construction
- Any precautionary measures that may be required as a result of dynamic coastal processes, must be implemented within the boundaries of the property
- No additional footpaths through vegetation to be created.
- No AIS permitted in landscaping; remove any AIS found within erf as soon as detected for disposal at license waste site

4. Soil management

Planning

- The pool decking area must be designed to ensure no disturbance to vegetation beyond erf boundary.

Construction Phase - Planning – Construction Team

- Shade cloths, designated laydown and topsoil and stockpile areas

Construction– Construction Team

- Sequencing of development should be done form most sensitive to least sensitive areas . i.e., First - pool installation and decking; Second - building and garage; third - Gate)
- Topsoil should be cleared in a phased manner as per sequence of construction activities
- Topsoil removed (maximum 300mm depth) (including lawn and vegetation) must be suitably stockpiled within boundaries of the erf on a level area at no more than 1 meter in height in an area that will not be disturbed by construction for use in rehabilitation and landscaping on the site. Topsoil must be stored with removed vegetation and covered with tarpaulin / shade cloth to prevent loss of soil/ erosion / dust generation.

- Subsoil stockpiles must be stockpiled within boundary of the erf; subsoil stockpiles must not be higher than 1.5m. they should be placed on flat areas and covered with tarpaulin / shade cloth to prevent erosion / dust generation. Excavated materials to be re used as far as possible (i.e. as fill material); excavation materials not re-used are to be removed off site as quickly as possible and disposed at an appropriately licensed waste site.
- To prevent dust - During strong wind conditions it may be necessary to halt operations until conditions improve; Exposed areas should be wetted during windy / dry conditions
- Suitable netting / screening must be provided at eastern edge of boundary (i.e. between erf and public coastal area) to prevent disturbance beyond the erf from laydown of materials, waste generation and any hazardous substances that may be used.
- Allow a maximum disturbance footprint of 2m around infrastructures with exception of pool, decking area. Careful construction and management is required at the pool / decking area. Any disturbance occurring beyond erf boundary must be immediately mulched and revegetated to prevent soil erosion.

Post construction – Construction team

- Construction site must be cleared of all waste material, rubble, and debris associated with the construction phase at regular intervals during, and at the conclusion of the construction phase.
- Site preparation – remove all non-native weeds from the site of revegetation to reduce competition with native plant species.
- The rehabilitation of the 2m disturbance footprint with topsoil, mulch and any plants rescued on the site must occur as soon as possible after the conclusion of construction.

5. Noise and Visual Management

Construction Phase – Planning Team

- Working hours to be restricted to daytime hours (i.e. 7:30 am – 5:30pm)
- No major construction work to take place after hours or on Sundays or on public holidays.
- A complaints register should be kept to document complaints and the corrective action taken.

Construction Phase – Construction Team

- No loud music to be allowed on site.
- All vehicles and machinery must be kept in good working condition.
- Ensure good housekeeping:
    - Put in place waste management measures
    - Put in place soil management measures
    - Put in place terrestrial mitigation measures

6. Waste pollution and hazardous materials

Construction – Planning

- An incident/complaints register must be established and maintained on-site.
- Suitable storage, drip trays, ablution facilities, bins, skip to be provided as required
- waste management plan to deal with all waste streams
- Waste management area on site
- Identify closest registered waste site
- Maintain records of disposal / ablution service

Construction - Construction Team

- Under no circumstances may solid waste be burnt or buried on site.
- Waste management must follow waste hierarchy – avoid, reduce, reuse, recycle, dispose
- No Littering
- Contractors must monitor construction vehicles to ensure that they are not overly full – thus increasing the likelihood of spillage of debris on the site. Ensure any debris spilled onto roads is cleared up.
- No fuel to be stored on site;
- Do not leave machinery / vehicles running unnecessarily. Service machines and vehicles regularly to prevent unnecessary fumes and leaks.
- Ensure cleaning materials, volatile materials and other hazardous materials (e.g. chemicals) are securely stored within a suitable sealable non-corrosive container. Ensure lids are secure to avoid unnecessary release into the environment
- If machinery using fuels and oil required for construction (i.e. generators, compactors):
    - Refuelling must take place with drip tray.
    - Drip trays must be placed under such equipment when standing
    - In the event of a major spill or leak of contaminants, the relevant administering authority must be immediately notified as per the notification of emergencies/incidents.
    - Spill kit in place - Any spills must receive the necessary clean-up action. Appropriate arrangements to be made for appropriate collection and disposal of all cleaning materials, absorbents, and any contaminated soils. This must be stored in separate designated container on site for offsite disposal at licensed waste disposal site.
- Spilled cement or concrete must be cleaned up as soon as possible and disposed of at a suitably licensed waste disposal site.
- Ablution facility to be provided as necessary at a ratio of 1:10; ablution facility must be secured to prevent being blown over and must be regularly serviced. Service slips to be kept on record by site manager for audit purposes.

- Specific area within erf must be designated for the temporary management of various waste streams. Bins / skip must be available for collection, separation and storage of waste streams - i.e. general refuse, construction waste (wood and metal scrap), contaminated waste. Area to be designated for storage of excess subsoils, construction rubble.
- Where possible, construction and general wastes on-site must be reused or recycled.
- All solid waste collected must be disposed of at a registered waste disposal site. A certificate of disposal must be obtained by the construction site manager and kept on file and be made available for review at any time.
- Corrective action must be undertaken immediately if a complaint is received.

Post Construction - Construction Team

- Upon the completion of construction, the area will be cleared of all construction materials.

7. Energy Efficiency

Planning

Glazing of windows

- Energy efficiency requirements to comply with SANS 10400-part XA.
- Contractor is to adhere to energy efficiency specifications / requirements provided by architect and be used in conjunction with the approved building plans;
- The contractor may propose alternative materials & specifications to achieve or improve the overall energy efficiency of the design through consultation with the Architect.

Construction

- Construction is to be carried out during regular working hours to reduce the use of artificial lighting.

- Contractor will be advised to transport all construction materials on-site at the same time wherever possible; the collection of waste material must be conducted simultaneously with other collection / deliveries to reduce the amount of fuel usage

8. Social Aspects

Construction Team

- Use local reputable contractor
- Use local materials, where possible.
- Do not pay any cash wages on site to minimise criminal risk to employees

9. FIRE RISK

Construction – Planning Team

- Dust bucket for disposal
- Emergency fire numbers
-

Construction – Construction team

- No cigarette butts or burning substances are permitted to be released into the environment. All cigarette butts to be extinguished first and then disposed of in a waste receptacle provided.
- If a fire is detected it must be attended to immediately.
- Ensure emergency numbers are on hand for fire response in the area.

Operational Phase

- Cleared strip vegetation is approximately 2 meters beyond eastern erf boundary; Recommend to maintain as is as firebreak
- Do not clear further vegetation beyond erf boundary
- No fires beyond boundary of erf permitted.
- Fire emergency number on hand

6. EMP Targets – Planning, Construction, Operations

Aspect: Planning Activities

Impact: Noncompliance to conditions of Environmental Authorisation can have financial implications and lead to delays in the project. Insufficient budget, planning and responsibility allocated for environmental management will result in unmitigated impacts.

Responsibility: Holder of EA, engineers, town planners as applicable

The following is a summary checklist that can be used to ensure compliance to mitigation measures for planning phase:

Targets:

- ✓ EA in place
- ✓ ECO appointed
- ✓ Paelaontolgoist appointed
- ✓ Local contractor appointed
- ✓ EMPr and EA distributed to construction team
- ✓ EM file in place

- ✓ Search and Rescue and required Permits in place (trees, flora)

Aspect: Construction Activities
Impact: Noncompliance to conditions of Environmental Authorisation can have financial implications, loss of indigenous plants and animals, spread of alien invasive plants, erosion and polluting activities.
Insufficient budget, planning and responsibility allocated for environmental management will result in unmitigated impacts.
Responsibility: Holder of EA, contractors / maintenance contractors as applicable

The following is a summary checklist that can be used to ensure compliance to mitigation measures for construction activities

Targets:

- ✓ EM file kept updated
- ✓ ECO monthly audit reports
- ✓ Paelaontolgoist oversee excavations
- ✓ Necessary training provided as per scope of work and records kept i.e., toolbox talks
- ✓ Working hours: Restrict to weekdays between 07:00 to 17:00; Saturday 08:00 to 13:00; no Sundays or public holidays
- ✓ No blanket clearing of vegetation.
- ✓ Designated footprint and demarcated laydown area, no unnecessary disturbance to vegetation (2meter disturbance); Laydown, stockpiles areas, waste management area, Pegs / tape / screening material as required for demarcation of site clearing footprint
- ✓ No go areas designated
- ✓ Topsoil separated; stockpiled at 1 m height, suitably mulched and reused
- ✓ Subsoils reused where necessary; excess is disposed correctly
- ✓ No disturbance of indigenous plants outside development footprint
- ✓ No AIS in construction footprint
- ✓ No disturbance to fauna
- ✓ Ablution facilities (Ratio of 1:10)
- ✓ Waste plan in place
- ✓ No refuelling on site; no service of vehicles on site
- ✓ Drip trays, spill kits and hazardous waste bin as required
- ✓ Mixing containers and plastic liners (cement)
- ✓ Water cart / shade cloth for dust control
- ✓ Fire prevention training provided, and records kept
- ✓ Sand bucket for disposal cigarettes
- ✓ Fire response measures in place; emergency numbers on hand
- ✓ Code of conduct
- ✓ Incident / complaint register in place
- ✓ Records of waste management / toilet service
- ✓ External monthly audits carried out and kept on record
- ✓ Close out audits and any actions required
- ✓ No waste at end of construction; disturbed areas revegetated

Aspect: Operational Activities
Impact: Noncompliance to conditions can result in unnecessary loss of indigenous plants, erosion and coastal risk

Responsibility: Holder of EA

The following is a summary checklist that can be used to ensure compliance to mitigation measures for operational activities

- ✓ No fires beyond erf
- ✓ No additional paths created
- ✓ No removal vegetation beyond erf

Project Apects to be completed by construction team

Activity:	**Description of activity (i.e. AIS clearing, construction of road, maintenance activity)**			
Responsible person:				
Aspect	**Nature / Description**	**Required**		**Notes**
		✓	✘	
Scope of work	Description of scope of work and accompanying method statement / s	✓		
Designs / Plans completed	As required for scope of work			
Environmental Training	Environmental training required (i.e. excavations – archaeology; ongoing – litter; AIS; no -go)			
Health and safety	As required – HS File, first aid etc.			
Workforce	Number of workers required?			
	Required environmental management training (i.e. waste, soil management etc)			
	Local labour			
Suppliers	Local suppliers			
Transport and traffic	Transport required for site workers?			
	Access and parking requirements			
Site clearing	Area to be cleared			
	Permits on hand; Plants removed and stored			
Vegetation management	No disturbance to vegetation outside footprint	✓		
	Remove alien invasive from footprint as required	✓		
	Pegs / screening material for designating footprint			
Topsoil management	Top 300 mm soil with indigenous vegetation intact			
	Stockpile separately			
	Compost separately as mulch elsewhere in landscaping / public open space area			
Earthworks and subsoil management, erosion control / archaeology and Palaeontology resources	Area and depth to be excavated			
	Volume of material to be excavated per component			
	Duration of earthworks component			
	Where will excavated material be stored on site; subsoils covered; Rocks for landscaping; excess for landfill;			
	Shade cloths / water cart – dust control			
	Palaeontologist on site during excavations	✓		
Building material and equipment	Nature of required materials and equipment			
	Storage requirements / laydown areas for materials / equipment			
	Hazardous materials / substances – sealed containers, bunded area, non-permeable flooring, secure, equipped with roof.			
Waste management	Ablution facilities – Required? Number? Service Provider? Record of service to be kept	✓		
	General waste bins			
	Drip trays, cement mixing trays, plastic liners,			
	Spill kits, hazardous waste bins			

Activity:	**Description of activity (i.e. AIS clearing, construction of road, maintenance activity)**			
Responsible person:				
Aspect	**Nature / Description**	**Required**		**Notes**
		✓	✘	
	Skip			
	Service providers (waste / ablutions)			
	Construction rubble – designated area / skip as required			
	General waste – General waste bins with lids and labelled / storage area			
	Hazardous waste – drip trays / spill kits / storage area			
Drinking water and lunch area	Quantity required? Lunch area provided? Source of drinking water?			
Existing structures	Location of existing structures / infrastructures that may be in construction footprint			
Working hours	Working hours – no Sundays, no public holidays, no night time.	✓		

7. COMPLIANCE WITH THE EMPr

6.1 Monitoring and Compliance

The monitoring and compliance of the development should take place as follows:

- The ECO has the authority to instruct the Applicant to cease a particular operation causing or liable to cause significant environmental damage, and issue fines or penalties for non-compliance of the Environmental Management Programme/ EMPr.
- An Environmental Control Officer (ECO) must audit the site and compile an audit report on a monthly basis until construction completed; site is tidy, revegetation of disturbed areas
- The holder of the environmental authorisation (the Applicant) is responsible to ensure that an environmental audit report is submitted to the DEDEAT as per the timeframes stipulated in the Environmental Authorisation (EA).

6.2 Auditing Process

The terms of reference for the audits must comprise the following:

- Develop a checklist against which the criteria can be referenced during the audit.
- During the audit process, key individuals involved with the management of the project are to be given the opportunity to comment on issues being audited and will be invited to accompany the auditor during the site inspection.
- Compile an audit report on the implementation of the EMPr and compliance to the Environmental Authorisation and submit this report to the competent authority (DEDEAT).

Compliance ratings against which the listed criteria are assessed are as follows:

Symbol	Rating	Interpretation
Y	Yes	Evidence of compliance
P	Partial	Evidence of partial compliance
N	No	Evidence of non-compliance
NR	Not Relevant	The condition or commitment is not relevant at this stage of the development or it is inappropriate
NA	Not Audited	Not audited

6.3 Non-Compliance

Definition

The non-compliance is defined as, and will be issued for:

- Any deviation by the Applicant from the environmental conditions and requirements as set out in the EA and EMPr, or;
- Any contravention by the Applicant of environmental legislation, or;
- Any unforeseen environmental impact resulting from direct or indirect actions or activities on site that would be considered as a significant impact. Significance will be determined by the

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Environmental Control Officer (ECO) but will be informed by geographic extent, duration, lasting effects of the impact and extent of remediation to the impact.

Types of non-compliances issued

Two types of non-compliances may be issued:

A. Stop Works Non-Compliance

Stop Works Non-Compliance will require that all works as described in the non-compliance will stop immediately and may only continue on a formal written permission from the ECO.

Stop Works Non-Compliance will be issued under the following conditions:

- Total disregard by the Applicant to the environmental conditions and requirements listed in the EA and EMPr;
- An activity that if left unattended will escalate the degree, severity or extent of the environmental impact.

B. General Non-Compliance

A general non-compliance will allow work and activity by the receiving party to continue while the corrective action takes place.

6.4 Issuing a Non-Compliance

Non-compliance may be issued to:

- The Applicant
- Any representative of the Applicant

6.5 Process of Issuing Non-Compliance

The appointed Environmental Control Officer (ECO) may issue a formal non-compliance to the Applicant. A copy of the non-compliance issued will be placed in the EMPr file. The Applicant will be responsible for returning a formally signed off corrective action (as per template) to the ECO to be placed in the EMPr file. The ECO will be required to sign-off on the corrective action, indicating that it has been completed within the timeframes and to the satisfaction of the ECO.

In the event of damage being caused, the contractor will be responsible for the cost of cleanup, repair and / or rehabilitation as necessary, as well as being liable for the fine. Where there is erosion damage, pollution to the environment, or contravention of the no-go policy, the contractor is required to reinstate the conditions to normal as determined by the ECO. Spot fines up to a maximum value of R10 000 per offence can be instituted at the discretion of the ECO for any breach or non-compliance in terms of the EMPr. Fines issued will increase exponentially for repeat offences.

6.6 Failure to complete corrective actions

In the event that the Applicant fails or refuses to complete the corrective action, either at all or within the allocated timeframe, the ECO shall,

- Inform DEDEAT in writing that a condition of approval for the project is not being met.

The DEDEAT office is responsible for resolving the impasse with the Applicant.

The Applicant is deemed not to have complied with the EA and EMPr if:

- Within the boundaries of the site and site extensions there is evidence of contravention of clauses;
- Environmental damage occurs due to negligence; inappropriate actions taken by the Applicant or any of his staff.

On receiving a notice of non-compliance the Applicant is required to swiftly address the issue/s taking all corrective actions required to rectify the situation. Penalties will be applied for non-compliant situations. Penalties/fines are advocated to ensure corrective measures are successfully undertaken and the necessary standard of rehabilitation is achieved.

The penalty associated with a chemical spill is not a set amount but will depend on the nature and extent of the spill; the cost of any soil and /or groundwater monitoring and any soil and /or groundwater remediation required by authorities will be to the Applicant's account.

The imposition of such a penalties / fines shall not preclude the relevant competent authority from applying an additional penalty in accordance with statutory powers.

Failure to redress the cause shall be reported to the relevant authority for them to deal with the transgression as deemed fit.

6.7 Unlawful Activity/ies

NEMA and its Regulations entitle environmental authorities to administer a fine not exceeding R 5 million- or 10-years imprisonment and/or a fine and imprisonment for a person guilty of an unlawful activity. The Act makes allowance for the rectification of unlawful activity and may charge up to R1 million administration fees over and above the remediation costs.

NEMA makes provision for damages to be awarded by the courts where loss or damage has occurred as a result of a contravention of other environmental statutes. Importantly, NEMA provides for the liability of conviction of employees, managers, agents and directors for any offences resulting from the failure to take all the reasonable steps that were necessary under the circumstances to prevent the commission of an offence.

8. AMENDMENTS TO THE EMPr

This EMPr outlines the environmental practices and mitigation measures to be adhered to during the construction, operational phases, and rehabilitation in order to curtail and/or minimise potential negative impacts and promote sound environmental practises.

Any major issues not covered in the EMPr as submitted, will be addressed as an addendum to this EMPr, and submitted for approval. The EMPr is a living document and is subject to change from time to time in consultation with the DEDEAT. Any amendments to the EMPr will require approval from the DEDEAT.

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9. ENFORCING THE EMPr

The holder of the Environmental Authorisation (EA) has a responsibility to ensure that all those people involved in the project are aware of and familiar with the environmental requirements for the project (this includes casual labour, etc.). The EA and EMPr shall be part of the terms of reference for all stakeholders. All senior and supervisory staff members shall familiarise themselves with the full contents of the EA and EMPr. They shall know and understand the specifications of the EA and EMPr and shall be able to assist other staff members in matters relating to the EA and EMPr.

TABLE OF RESPONSIBLE PARTIES BELOW:

Responsibility	Name of Responsible Party
Applicant	**Eloise and Stephen Wells**
Town Planner / Architect	
Contractor/s	
Site Manager	
External Environmental control Officer	
Palaeontologist	

10. DRAFT STAFF / RESIDENT CONDUCT CONTROL AND INFORMATION SHEET

ALL STAFF MUST OBEY THE FOLLOWING RULES:	
1	**DO NOT** tamper with or destroy nesting sites, lairs or any other form of animal shelter.
2	**DO NOT** feed the native animals.
3	**DO NOT** leave the project site untidy and strewn with rubbish that will attract pests.
4	**DO NOT** bring any pets onto the project site.
5	**DO NOT** trespass onto private properties not linked to the project.
6	**DO NOT** carry a weapon onto the project site or in the vehicles transporting workers to and from the site.
7	**DO NOT** set fires.
8	**DO NOT** cause any unnecessary disturbing noise
9	**DO NOT** drive a vehicle under the influence of alcohol.
10	**DO NOT** exceed the national speed limits on public roads or exceed the recommended speed limits in this management plan (where applicable)
11	**DO NOT** drive a vehicle that is generating excessive noise / leaking / excessive fuels (such vehicles must be reported and repaired as soon as possible).
12	**DO NOT** litter along the roadsides, including both public and private roads.

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13	**DO NOT** remove or destroy vegetation around the site without the prior consent of the Applicant and Environmental Control Officer.
14	**DO NOT** tamper with, destroy or remove vegetation from any areas that have been fenced off or marked.
17	**DO NOT** operate critical items of mechanical equipment without having been trained and certified.
18	**ALL** employees must undergo the necessary safety training and wear the necessary protective clothing at all times.
19	**NO** unsocial behaviour will be permitted e.g., excessive shouting, hooting etc.
20	**NO** ad-hoc activities are to be undertaken e.g. fires for cooking, the use of surrounding bush as a toilet facility is strictly forbidden
21	**NO** trespassing on private / commercial properties adjoining the site is forbidden.
22	**NO** worker may be forced to do work that is potentially dangerous or for what he / she is not trained to do.

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11. RESPONSIBILITIES

The "Responsibility" column is merely a guide and does not relieve the Applicant of his responsibilities in terms of overall compliance with the EA and EMPr.

FUNCTION	RESPONSIBILITY
Applicant / Holder of EA (if attained)	• The Applicant is ultimately responsible for the ensuring compliance with all the requirements associated with the construction, operation, rehabilitation and decommissioning phases of the project. • The Applicant is responsible to ensure that all necessary communication and submission of required documentation concerning this project is submitted to the relevant authorities.
Contractor / s / Subcontractor/s	• The Contractor is required to adhere to the EMPr and is responsible to ensure that all staff appointed also adhere the EMPr. • Ensures that all staff are made aware of the need to conduct activities in an environmentally responsible manner. • (Contractor) On instruction by the ECO, ensures that storm/surface water controls are established. • Ensures prompt remediation of any sewage spills. • Stockpiles are protected from aeolian effects, stormwater effects, or being driven over by workers. • Ensures that a "clean-site" policy is applicable at all times. • Ensures that all complaints by residents are dealt with promptly. • Is responsible for any contravention/s by staff or any non-compliance with the EMPr.
Site palaeontologist	• Required to monitor excavations for resources and submit relevant reports to ECHPRA
Environmental Control Officer (ECO)	• An external ECO is to have access to the site at all times, for the purpose of inspections to ensure that the environmental conditions of the EMPr as well as the conditions stipulated to in the EA and the recommendations made in the EIR are being implemented and adhered to. • The ECO to carry out monthly audits to ensure compliance with EMPR and EA (if attained) and submit the reports to project team and relevant authorities • The need for any deviations or variations in the environmental conditions must be reported to the DEDEAT for approval prior to these being undertaken. • The ECO must be fully cognisant with the contents of the Environmental Authorisation as well as this EMPr and any other applicable legislation
Competent Authority - DEDEDEAT	• The Compliance Officer appointed by the Competent Authority is responsible for the ensuring that the Applicant, Contractor, and ECO are compliant with the provisions of the EA and EMPr.
DEDEAT	• Responsible for issuing any SCC permits for fauna and smaller plants
Department of Forestry	• Responsibility for issuing permits for protected trees
ECPHA	• Responsible for issuing of permits required for any discovered artefacts during excavation / site clearing activities

ACKNOWLEDGEMENT FORM

Record of signatures providing acknowledgment of being aware of and committed to complying with the contents of this Environmental Management Programme (EMPr), which relates to the environmental mitigation measures for the project outlined below, and the environmental conditions contained in all other contract documents.

PROJECT NAME:

PROPOSED residential DEVELOPMENT on Erf 1220, St Francis Bay, Kouga Local Municipality, Eastern Cape

DEDEAT REF: EC08/C/LN1/M/51-2024

APPLICANT:

Signed: …….. Date: …….....

CONTRACTOR:

Signed: …….. Date: …….....

EXTERNAL ENVIRONMENTAL CONTROL OFFICER

Signed: …….. Date: …….....

ANNEXURE 1: Mapping of Environmentally Sensitive Areas

Figure 1: All open areas outside the erf are No-go areas; access to eastern areas must be restricted during construction; Milkwood trees (indicated in green) must be cordoned off prior to start construction.

ANNEXURE 2: CV of EAP

Claire De Jongh

Curriculum Vitae

Current Position	Environmental Assessment Practitioner
Current Location	Port Elizabeth, South Africa
Date of birth	13 July 1983
Year of Birth	1983
Specialisation	Environmental Management
Nationality	South African
Years of experience	15 years
HDI status and gender	White Female
Languages	English (Excellent – Reading, Writing, Speaking, Presenting) Afrikaans (Fair – Reading, Writing, Speaking)
Contact Details	+27846074743 / clairejarvis@hotmail.co.za
Career Profile	Claire's career in the environmental field spans 15 years. Her work involves:

- Basic Assessment Reports
- Scoping and full environmental impact assessment Reports
- Waste management licences
- Coastal Water Discharge Permits
- Water use licence applications
- Project coordination, authority liaison, specialist team management
- Environmental management programmes reports
- Methods statements and procedures
- Environmental management systems
- Environmental Auditing
- Rehabilitation strategies and implementation
- Aspect / impact registers and implementation of environmental management systems in line with ISO14001
- Environmental training
- Environmental monitoring
- Environmental awareness education
- Management, coordination and implementation of environmental and social development projects

Career History	Environmental Assessment Practitioner and ECO (current) CEN Integrated Management Unit February 2015 to current Senior Environmental Consultant Eco Route Environmental Consultancy (October 2023 to current) Senior Environmental Consultant – contract basis Ethical Exchange sustainability Services (Pty) Ltd June 2011 to January 2015 Environmental Consultant BSc Honours (Environmental Monitoring and Modelling) 2009 to 2011 WESSA (BushPigs Outdoor Environmental Education Centre) 2007 to 2009 Environmental Education Programme Coordinator Green Gain Consulting 2005 to 2007 Environmental Consultant: Environmental Management Systems; Training
Education and Courses	BSc (Hons) Environmental Monitoring and Modelling, 2012. BSc Environmental Management: Zoology Stream, 2007. IEMA Accredited Environmental Auditor Training Course: Aspects International, 2011. Environmental Awareness and Legal Liability Course, 2006 (2 days). Field Guiding Association of South Africa (FGASA) Level 1. ICDL, 2004, (Microsoft word, excel, access, PowerPoint, outlook).
Professional Affiliations	EAPASA Registered EAP (Number 2021/3519) SACNASP: Certificated Natural Scientist (Registration 115390). Member of the International Association for Impact Assessment (IAIA). Member of the Field Guiding Association of South Africa (FGASA).
Main Sectors of Expertise	Waste management, Residential, Eco-tourism, Agriculture, Water Treatment, Energy, linear infrastructure
Areas Worked	Predominantly Eastern and Western Cape; Throughout South Africa.

Professional Competency Statement:

Claire's career in the environmental consulting field spans 15 years. Claire has been involved in a number of environmental impact assessment projects. Her roles have included being the Environmental Assessment Practitioner (EAP), with responsibilities including compilation of regulated EIA's (i.e. scoping reports, EIA reports, Basic assessments, and Environmental Management Programme reports), undertaking environmental assessments, carrying out the legislated public participation process, compiling fauna screening reports, and incorporating specialists into the EIA team. Claire has been involved in environmental compliance audits and has acted as Environmental control officer and compiled the required audit protocols and audit reports. Claire has compiled environmental management systems compliant with ISO14001.

Claire has worked extensively throughout South Africa. Claire's strengths lie with understanding and application of environmental legislation, data collection and collation, research, compilation of reports, accuracy, effective communication, and effective time management.

List of Experience:

Environmental Impact Assessments, EMPr's, Water Use license applications

- Elliotdale WWTW: Integrated EA and WML and EMP for Elliotdale WWTW and upgrading of sewage infrastructure (2024 - current)
- EMPR – Kingsway resort, 2024
- EMPR – Fairview, Erf 4256, 2024
- Section 24G – illegal pumping activities, Sundays River (2023 to current)

- Basic Assessment and EMP and EA application: Residential development, erf 2074, Plettenberg Bay (2024 - current)
- Basic Assessment and EMP and EA application: Residential development, erf 7614, Knysna (2024 - current)
- Maintenance management plan and DWS General Authorisation for upgrade of Bay Dunes Sewer Pump Station, Mossel Bay on behalf Of Mossel Bay Municipality, Western Cape (October 2023 – February 2024)
- Basic assessment and EMP for development of fuel storage facility in Nelson Mandela Bay Municipality, Eastern Cape (2023).
- Basic assessment and EMP and EA application for Expansion of fuel storage facility in NMBM, Eastern Cape (2023 to 2024).
- Port Alfred Reverse Osmosis Project: Basic assessment and EMP and EA, WUL and CWDP application for 5Ml reverse Osmosis project on behalf of Ndlambe Local Municipality, Eastern Cape (2020 - 2022).
- Addo Lodge: Basic assessment and EMP and EA application and WULA for lodge and tented camp in Addo, Eastern Cape (2021 - 2022).
- Langkloof Bricks: Operational EMP for renewal of air emissions license application (2021)
- Somerset East Powerlines: Construction EMP for installation of H frame poles and overhead powerlines between substation and Industrial Park (2021)
- Clarkson WWTW: Integrated EA and WML and EMP for expansion of Clarkson WWTW and upgrading of sewage infrastructure (2018 – 2022)
- Farm 717, Addo: S24 G assessment report (2018 to 2019); Scoping and Environmental Impact Assessment and EMP for 150 ha citrus and irrigation on behalf of Coega Kamma Citrus (2019 – 2023)
- Erf 168, Walker Driver: Basic Assessment and EMP for housing project on behalf of developer, Port Elizabeth (2018 – 2020)
- Oyster Bay Lodge: NEMA Section 24G Application on behalf of landowner, Eastern Cape (2018 – 2020)
- Erf 3783, Summerstrand: Basic Assessment and EMP for residential development, Port Elizabeth (2018 – 2019)
- Kwandwe Staff Village: Basic Assessment and EMP on behalf of Kwandwe, Makana Municipality, Eastern Cape (2017 - 2018)
- Feasibility study: Screening assessment of properties on behalf of NMBM (2016)
- Wells Estate Conservancy Tanks: Basic Assessment process for Expansion project on behalf of NMBM (2016)
- Driftsands Waste Water Treatment Works: Integrated Environmental and Waste Management License; Coastal Water Discharge Permit; Water Use License Application for Expansion project on behalf of NMBM (2016 - 2017)
- Sundays River Citrus Corporation: Basic Assessment process for Expansion projects at Summerville and Hermitage on behalf of SRCC (2015 – 2017)
- Walmer Cosmo/ Erf 1953: Basic Assessment process for integrated residential development on behalf of Privivox cc, Eastern Cape (2015 - 2016)
- Milkwood Gardens / Erf 1953: Amendment Application for change of ownership; update construction and environmental management programmes on behalf of Own Haven (2015 – 2017)
- Sardinia Bay: Basic Assessment process for public access facilities at Sardinia Bay on behalf of NMBM, Eastern Cape (2015 - 2016)
- Sardinia Bay Public Access Facilities: Amendment Application for change of site (2016 – current)
- Bayethe Luxury tents: Basic Assessment Process on behalf of Bayethe Lodge, Eastern Cape (2015 – 2016)
- Bayethe: NEMA 24G rectification for luxury tents on behalf of Bayethe Lodge, Eastern Cape (2015 - 2017)
- Cascades Iron Ore Mine: EIA process on behalf of Mkhombi Mining, Mpumalanga (2014).
- Zuurberg Road Upgrade: Basic Assessment process on behalf of the Department of Rural Development and Land Reform, Eastern Cape (2014).
- New Largo Colliery: EIA process, state of the environment report, closure and rehabilitation plan and waste management license on behalf of Anglo American Inyosi Coal, Mpumalanga (2011 to 2015).
- Mobile Water Treatment Plant: Waste management license for a mobile water treatment plant to supply water to the Phola-Kusile Coal Conveyor, on behalf of Anglo American Inyosi Coal, Mpumalanga l (2011 to 2015).
- Monitoring Weirs: Basic assessment process and Environmental Management Programme for monitoring weirs as part of reserve determination required by DWA, for Anglo American Inyosi Coal, Mpumalanga (2012 to 2014).
- Phola-Kusile Coal Conveyor: Environmental impact assessment and environmental management programme on behalf of Anglo American Inyosi Coal, Mpumalanga (2011 to 2014).
- St Albans: Public Participation Process carried out on behalf of Department of Public Works, Eastern Cape (2014).
- Grootegeluk Mine Backfill Conveyor System: Environmental impact assessment and EMP amendment, on behalf of Exxaro Coal, Limpopo (2011).

ECO, Monitoring, Auditing Environmental Management Systems

- Addo citrus Eb en Vloed Farm 171, ECO for construction phase (May 2024)
- Kingsway Development, Gamtoos River, Compliance audit to ROD (April 2024 to current)
- Expansion Fuel storage facilities, Motherwell: ECO for construction phase (February 2024 to current)

- ECO and Compliance audit for non-compliant start of business development on erf 4256, Fairview; ongoing ECO for start of construction phase (February 2024 to current)
- Upgrading of Clarkson WWTW: ECO for construction phase (2023 – current)
- Addo Ecolodge: ECO for construction phase (2023 – current)
- Upgrading of Pumpstations, Motherwell and Stanford, NMBM: ECO for construction phase (2022 – 2024)
- St Francis Bay Residential Development, Kouga Local Municipality: ECO for construction phase (2022 – current)
- The Edge Hospital, NMBM: ECO for construction phase (2021 – 2022)
- River Oaks Residential Development, NMBM: ECO for construction phase (2021 – 2023)
- Coegakop Wellfield, NMBM: ECO for construction phase (2021 – current)
- Erf 3783, Summerstrand: ECO for construction phase (2019 – current)
- Sardinia Bay Public Access Facilities: ECO for construction of parking area (2018)
- Sardinia Bay Public Access Facilities: ECO for demolition of structures within 100m of HWM (2016 – 2017)
- Coega Manganese Terminal Air Quality Monitoring: Coordination of PM10, PM2.5 and dustfall baseline monitoring for the proposed Manganese Terminal at Coega, Eastern Cape (2013 - 2015).
- Tharisa Mine: External Compliance audit in terms of WUL and EA, North-West (2013).
- Formalchem: Land Contamination Monitoring and Assessment: Coordination of Land contamination Assessment for mothballed glue manufacturing company in Berlin, Eastern Cape (2012-13).
- Formalchem: Remediation plan and progress report prepared for DEA on behalf of client, Eastern Cape (2012-2014).
- Elitheni Coal Mine: Compilation of legal audit protocol (EMP, Water use license, waste management license, environmental authorisation), Eastern Cape (2013).
- Pikitup Roodepoort Waste Site: Site audit and report compilation, Gauteng (2009).
- Sun International: Compilation of aspects / impacts register and environmental management system for entire Sun International Group, all SA provinces (2006 - 2007).
- Sun International: Environmental management system training for the environmental managers, all SA provinces (2006 - 2007).
- Lonmin Platinum: Compilation of aspect impact register and environmental management system, North West (2006).

Guidelines, Environmental Awareness, Education and Training

- Part of team responsible for development of Albany Thicket Ecosystem Guidelines on behalf of SANBI (2017 – 2019)
- Part of team responsible for development of Savanna Ecosystem Guidelines on behalf of SANBI (2017 – 2019)
- Development of sustainable educational programmes (2009 - 2014).
- ZAMA: Coordination of corporate social sponsorships, Eastern Cape (2012 - 2013).
- Environmental Education: Coordination and development of environmental education programmes, Limpopo (2007-09).
- Richards Bay Minerals: Basic environmental awareness training at Richards bay Minerals, kwaZulu Natal (2005).
- Tiger Brands and Dairy Belle: Environmental awareness training for employees of all Tiger brands, all SA provinces (2006 - 2007).

Administration and engagement

- Engagement with relevant government authorities, stakeholders and clients
- Management of specialist teams
- Compilation of tenders and proposals for Environmental services
- Report writing, GIS and map compilation, Presentations and Training

Environmental Studies (BSc and BSc Honours)

- Undergraduate - Animal Behaviour: Behaviour of the Marsh Owl. Achieved 100 % (2003).
- Honours - The abundance of the South African Lepidopteran pest organism, Busseola fusca, found on genetically modified Bt maize, conventional pesticide- sprayed maize, and polyculture-farmed maize, to determine the best practice farming method with regards to pest control. Achieved 97 % (2011)

SACNASP

South African Council for Natural Scientific Professions

herewith certifies that

Claire Elizabeth De Jongh

Registration Number: 115390

is a registered scientist

in terms of section 20(3) of the Natural Scientific Professions Act, 2003
(Act 27 of 2003)
in the following field(s) of practice (Schedule 1 of the Act)

Environmental Science (Certificated Natural Scientist)

Effective **20 July 2016** Expires **31 March 2025**

Chairperson

Chief Executive Officer

To verify this certificate scan this code

UNISA

UNIVERSITY OF SOUTH AFRICA

We certify that

Claire Elizabeth Jarvis

having complied with the requirements of the Higher Education Act

and the Institutional Statute, was admitted to the degree of

BACHELOR OF SCIENCE

with specialisation in Environmental Management: Zoology Stream

at a congregation of the University

on 11 June 2008

Vice-Chancellor

Executive Dean

University Registrar

PRO GENTIBUS SAPIENTIA

UNISA

UNIVERSITY OF SOUTH AFRICA

We certify that

CLAIRE ELIZABETH JARVIS

having complied with the requirements of the Higher Education Act and the Institutional Statute, was admitted to the degree of

HONOURS BACHELOR OF SCIENCE

in Environmental Monitoring and Modelling

at a congregation of the University
on 12 June 2012

Vice-Chancellor

Executive Dean

University Registrar

10556835576839G05061

Environmental Assessment Practitioners Association of South Africa

Registration No. 2021/3519

Herewith certifies that

Claire Elizabeth de Jongh

is registered as an

Environmental Assessment Practitioner

Registered in accordance with the prescribed criteria of Regulation 15. (1) of the Section 24H Registration Authority Regulations (Regulation No. 849, Gazette No. 40154 of 22 July 2016, of the National Environmental Management Act (NEMA), Act No. 107 of 1998, as amended).

Effective: 01 March 2024

Expires: 28 February 2025

Chairperson

Registrar

SAQA
SOUTH AFRICAN QUALIFICATIONS AUTHORITY