

**DRAFT ENVIRONMENTAL MANAGEMENT
PROGRAMMME (EMPR)
FOR THE PROPOSED TOWNSHIP
ESTABLISHMENT ON PORTION OF
THE REMAINDER OF FARM BEZWENI
NO. 18223,
Mzimkhulu Local Municipality**

EIA Reference No. DC43/0015/2024

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SECTION 1

1. INTRODUCTION

1.1. Background of the project

The Department of Human Settlements, uMzimkhulu Local Municipality, and local communities have identified the need for subsidized housing on a portion of the Farm Bezweni No. 18223, in uMzimkhulu Local Municipality, Ward 16, KwaZulu-Natal.

The Bezweni housing development has a total land size of approximately 300ha, with approximately 677 residential stands and other stands reserved for government, business/commercial and open space purposes. The area can be accessed via P749 road. The proposed site is vacant with Nyenyezi SP School and uMzimkhulu Hospital along its boundaries.

The project will consist of the construction of bulk infrastructure including roads, installation of water pipelines, sewer and stormwater. This township development will address the growing housing demand in the area and generate job opportunities during all construction phases.

1.2. Purpose of the EMPr

This EMP is based on the principles of the National Environmental Act (No. 107 of 1998) these principles include:

- To avoid minimize or correct the disturbance of the environment.
- To avoid or minimise waste and to re-use or re-cycle waste where possible;
- To dispose of waste in an acceptable manner;
- To apply a risk averse and cautious approach; and
- To anticipate and prevent negative impacts on the environment (physical, biological, social, economic, and cultural). Where these impacts cannot be prevented, such impacts must be minimised or remedied.

This EMPr, among other things:

- Presents an action plan for the implementation of mitigation measures with the purpose of regulating the Contractor's conduct or method of working.
- Provides specific environmental guidance for construction activities.
- Incorporates measures to manage and mitigate construction activities so that negative environmental impacts are avoided or reduced.
- Identifies and allocates responsibilities for specific actions associated with the management of construction activities to mitigate negative environmental impacts.
- Provides an outline of the activities which require monitoring and the assessment thereof.

The Environmental Management Programme (EMPr) comprises a Construction Environmental Management Plan (CEMP) and an Operational Environmental Management Plan (OEMP), which is required by the Department of Agriculture and Environmental Affairs (DAEA) by the conditions of the Record of Decision (ROD). The DAEA will stipulate certain obligatory issues that must be addressed in the project EMPr.

1.3. Objectives of the EMPr

- Identifying those activities that may have a detrimental impact on the environment;
- Detailing the mitigation measures that will need to be taken, and the procedures for their implementation;
- Ensure compliance to environmental legislation;
- Establishing the reporting system to be undertaken.
- Ensure compliance to environmental legislation;

1.4. EMPr requirements

This EMPr has been compiled in accordance with the minimum legal requirements outlined in Appendix 4 of Government Notice No. 326, Environmental Impacts Regulations, 2017.

Table 1: EMPr report structure

No.	Requirements	Sections
1.	Details of - (i) the EAP who prepared the EMPr (ii) the expertise of that EAP to prepare an EMPr, including a curriculum vitae;	Section 1.6
2.	A detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description;	Section 1.2, 1.3, 1.5, 1.8
3.	A map at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that [any areas that] should be avoided, including buffers;	Section 2
4.	A description of the impact management [objectives] 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;	Section 3
5.	A description and identification of impact management outcomes required for the aspects contemplated above	Section 3

No.	Requirements	Sections
6.	<p>A description of proposed impact management actions, identifying the manner in which the impact management outcomes contemplated above will be achieved, and must, where applicable, include actions to —</p> <p>(i) avoid, modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation;</p> <p>(ii) comply with any prescribed environmental management standards or practices;</p> <p>(iii) comply with any applicable provisions of the Act regarding closure, where applicable; and</p> <p>(iv) comply with any provisions of the Act regarding financial provision for rehabilitation, where applicable;</p>	Section 3
7.	The method of monitoring the implementation of the impact management actions contemplated above	Section 3
8.	The frequency of monitoring the implementation of the impact management actions contemplated above	Section
9.	An indication of the persons who will be responsible for the implementation of the impact management actions;	Section 3
10.	The time periods within which the impact management actions contemplated above must be implemented;	Section 3
11.	The mechanism for monitoring compliance with the impact management actions contemplated in paragraph	Section 5
12.	A program for reporting on compliance, taking into account the requirements as prescribed by the Regulations;	Section 6
13.	<p>An environmental awareness plan describing the manner in which—</p> <p>(i) the applicant intends to inform his or her employees of any environmental risk which may result from their work; and</p> <p>(ii) risks must be dealt with in order to avoid pollution or the degradation of the environment; and</p>	Section 7

1.5. Policy Statement

The construction will be planned and designed to the best management practices as identified to minimise the environmental impact of activities associated with the development.

1.6. Details & Expertise of the Environmental Assessment Practitioner

Table 2: Details and Expertise of EAP

Name of Consultant/Company	ACCRA Group
Physical address	17 Clark Road, Glenwood, 4001
Postal address	PO Box 52040, Berea Road,4007
Contact person:	Mr. Pravin Amar Singh
Qualifications & Experience	<ul style="list-style-type: none">- Registered Environmental Assessment Practitioner- Master of Laws (Environmental Law)- Masters of Town & Regional Planning- Integrated Environmental Management (UCT)- Certified Climate Literate (Nottingham University)-- Carbon Audit Professional- Energy Performance Certificate (EPC): QCTO Qualified- Certified Carbon Footprint Analyst (IEM – UK)- Registered Carbon Footprint Analyst (IEMA- UK)- Energy Performance Certificate (EPC): Certificate of Achievement following an Examination- Energy Performance Certificate Practitioner: QCTO Accredited- Certified Climate Literate (Nottingham University)- Accredited Professional: Green Building Council of South Africa- Green Star Accredited Professional: Sustainable Precincts- Net Zero (Waste/ Water/ Energy & Ecology) Accredited Professional
Cellphone:	(+27) 82 445 6948
Telephone:	(031) 201 7510
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Email address:	enviro@accragroup.co.za

The EAP has extensive experience in environmental management including inter alia environmental impact assessments; environmental auditing and carbon/greenhouse gas auditing.

The EAP is a member of number of professional bodies namely:

- Environmental Assessment Practitioners of SA (EAPASA)
- Association of Energy Association (US)

- International Association of Impact Assessment (SA)
- Project Management South Africa (PMSA)
- Integrated Waste Management Association of SA (IWMSA)
- Accredited Professional: Green Building Council of South Africa
- Registered Carbon Footprint Analyst (IEMA- UK): 2020
- Association of Climate Change Officers (USA): 2022/23
- Association of Sustainability Professionals (UK): 2023

1.7. Legislative Requirements

It is recommended that this EMPr is a contractual agreement between the Developer and its Contractors and Sub-contractors.

This EMPr is a requirement to ensure sound environmental management.

1.8. Applicable Environmental Legislation and Policy Requirements

The NEMA stipulates that anyone who causes pollution or degradation of the environment is responsible for preventing impacts occurring, continuing or recurring and for the costs of repair of the environment. Other legislations/policies/guidelines that contain requirements which were taken into consideration in drafting this EMPr, include:

Table 3: Application Legislation/Policy/Guideline requirements

No.	Legislation/Policy/Guideline	Administering authority	Date
1.	Constitution of the Republic of South Africa (Act No. 108 of 1996)	The Constitutional Court	1996
2.	National Environmental Management Act, 1998	Department of Economic Development, Tourism and Environmental Affairs (DEDTEA)	1998
3.	NEMA: Environmental Impact Assessment (EIA) Regulations, 2014 (as amended)	DEDTEA	2014 (amended on 7 April 2017)
4.	National Environmental Management: Waste Act 2008, (Act No. 59 of 2008)	DEDTEA	2008
5.	National Environmental Management: Biodiversity Act (No. 10 of 2004)	DEDTEA	2004
6.	National Environmental Management: Air Quality Act 2004, (Act No. 39 of 2004)	DEDTEA	2004
7.	National Water Act (Act No. 36 of 1998)	Department of Water and Sanitation (DWS)	1998
8.	Occupational Health and Safety Act (No 85 of 1993)	Department of Labour	1993
9.	National Road Traffic Act, 1996 (Act No. 93 of 1996)	Department of Transport	1996

No.	Legislation/Policy/Guideline	Administering authority	Date
10.	The uMzimkhulu Local Municipality Spatial Development Framework 2021-2022	uMzimkhulu Local Municipality	2021-2022
11.	The uMzimkhulu Integrated Development Plan 2021-2022	KZN Department of Human Settlement and uMzimkhulu Local Municipality	2021-2022
12.	uMzimkhulu Local Municipality Spatial Planning and Land Use Management Act, 2024 (SPLUMA)	uMzimkhulu Local Municipality	2024
13.	National Heritage Resources Act (Act 25 of 1999)	KZN Amafa and South African Heritage Resources Agency (SAHRA)	1999
14.	KwaZulu-Natal Heritage Act (No. 4 of 1998)	KZN Amafa and South African Heritage Resources Agency (SAHRA)	1998

SECTION 2

2. Layout Plan

A map of an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers.

(Please see Appendix 2: Part C)

3. ENVIRONMENTAL MANAGEMENT PROGRAMME

3.1. Planning and Design Phase

No.	Aspects	Mitigation Measures/Actions	Responsible party	Timeframe	Frequency
Planning and Design Phase					
1.	General compliance reporting	<ul style="list-style-type: none"> The design team, contractors, and subcontractors that work on the site, as well as the developer, shall be bound by this EMPr. The contract's special conditions shall include clauses requiring strict respect to and compliance with this EMPr in addition to the general and specific requirements set forth by the Competent Authority. Ensure compliance with all relevant legislation and policy by thoroughly reviewing and consulting with legal experts. The Developer must designate an Occupational Health and Safety Officer (OHSO) and an Environmental Consultant/Environmental Control Officer to supervise the project's safety and environmental concerns. The OHSO and ECO must form part of the project management team and must attend all project meetings. Both parties must provide the Project Manager with a monthly report detailing the contractors' and sub-contractors' compliance with the environmental and safety guidelines outlined in this EMP. 	Developer	Planning and/or Design	Ongoing Monthly
2.	Planning	<ul style="list-style-type: none"> The construction phase must adhere to the specified legislative frameworks throughout its development stages. The construction phase must comply with the Waste Management Requirements (uMzimkhulu Local Municipality Integrated Solid Waste management by-laws). 	Developer	Planning	Ongoing

No.	Aspects	Mitigation Measures/Actions	Responsible party	Timeframe	Frequency
		<ul style="list-style-type: none"> This EMP is a mandatory component of all agreements between the developer and contractors. All recommendations from specialist studies must be incorporated in the planning phase. This includes amendment of designs where required. All the required studies for the development i.e. Geotechnical investigations needs to be carried. 			
Pre-construction Phase					
3.	Authorisation, permits and licenses	<ul style="list-style-type: none"> Before construction, the Developer must obtain all required authorizations, permits, and licenses. 	Developer		Once-off
4.	Appointment of contractors	<ul style="list-style-type: none"> For the proposed project to be carried out, the Developer must make sure that this EMPr is included in any contracts with a contractor or contractors and subcontractors. The Contractor's budgets must include enough funding for the EMPr's implementation. The Principal Contractor (including sub-contractors and suppliers) must comply with the relevant provisions of the EMPr, applicable environmental legislation, by-laws and associated regulations promulgated in terms of these laws. It should be stated in tender documents that local communities or community organizations would be used whenever possible to provide labour and services for construction-related activities. 	Developer		Ongoing
5.	Appointment of Environmental Control Officer	<ul style="list-style-type: none"> An Independent ECO must be appointed by the holder of the Environmental authorisation at their cost to monitor the implementation of the EMPr 	Developer		Once-off
6.	Environmental training and awareness	<ul style="list-style-type: none"> The ECO and the SHE Officer are responsible for providing sufficient education to the construction team regarding the EMPr's rules and environmentally friendly practices in general. 	Developer and/or appointed Agent	Prior to commencement of site	Ongoing

No.	Aspects	Mitigation Measures/Actions	Responsible party	Timeframe	Frequency
		<ul style="list-style-type: none"> All contractors, subcontractors, and temporary workers must undergo the official site induction, which includes the EA preferably in their native language. All contractors, sub-contractors, and casual laborers must sign an induction attendance record to acknowledge their understanding of the EMPr and environmental responsibilities. The Contractor is required to conduct regular "tool box" talks that address the risks and trends specific to the project. Documentation of these talks must be maintained on site. 		preparation and construction	

3.2. Construction Phase

Table 5: Construction phase

No.	Aspects	Activity	Potential impacts	Mitigation measures/Actions	Responsible party	Timeframe	Frequency of action
Construction Phase							
1.	Influx of people	Employment	An influx of job seekers and small traders to the area	<ul style="list-style-type: none"> The contractor/developer shall ensure that local labour is used where possible to improve the local economy of the area. 	Contractor		Ongoing
2.	Site establishment	Site demarcation and compliance		<ul style="list-style-type: none"> Ensure that the construction area is clearly marked and fenced off with shade cloth fencing. Clearly indicate all restricted areas within and outside the boundary to inform personnel on site. 	Contractor	Prior to commencement of site preparation and construction	Once-off

No.	Aspects	Activity	Potential impacts	Mitigation measures/Actions	Responsible party	Timeframe	Frequency of action
				<ul style="list-style-type: none"> • Install appropriate signage to inform the public about the ongoing construction activities. • The construction camp should not be situated on sloped terrain. Waste storage areas must be provided within the camp, and waste segregation should be practiced. • Adequate space should be allocated for all necessary equipment and construction activities. 			
3.	Biodiversity: Loss of Flora and Fauna	Site clearing	The proposed development will result in the transformation of the development which will result in the loss of faunal habitats within the area.	<ul style="list-style-type: none"> • All construction activities must be carried out according to the generally accepted environmental best practice and the temporal and spatial footprint of the development and its servitude must be kept to a minimum. • Care must be taken in the vicinity of the wetlands and existing access routes must be used for access. • The construction area, including stockpiling areas, are to be clearly demarcated and it must 	Principal Contractor	Site preparation prior to construction	Ongoing

No.	Aspects	Activity	Potential impacts	Mitigation measures/Actions	Responsible party	Timeframe	Frequency of action
				<p>be ensured that all activities remain within the demarcated footprint area. No activities are to infringe upon any watercourses.</p> <ul style="list-style-type: none"> Any natural areas beyond the footprint of the construction area, which have been disturbed, must be rehabilitated using indigenous plant species. Education and awareness campaigns on faunal species and their habitat are recommended to help increase awareness, respect and responsibility towards the environment for all staff and contractor. 			
4.	Storm-water management	Construction	The development of the site may result in increased runoff.	<ul style="list-style-type: none"> Plan and install appropriate stormwater control measures. Increase in storm water run-off resulting from construction activities must be estimated and the drainage system assessed accordingly. 	ECO	Site preparation and monitoring	Ongoing

No.	Aspects	Activity	Potential impacts	Mitigation measures/Actions	Responsible party	Timeframe	Frequency of action
				<ul style="list-style-type: none"> • If vegetation is to be removed, it must be done in phases to ensure that a minimum area of soil is exposed to potential erosion at any one time. • Temporary cut off drains, grassed or rock-pitched diversion ditches and berms may be required to capture storm-water and promote infiltration or to divert run-off away from exposed soil or construction areas. • Contractors must not in any way modify nor damage the banks or beds of streams or rivers, wetlands, other open water bodies and drainage lines adjacent to or within the designated area. • Earth, stone and rubble is to be properly disposed of to prevent obstruction of natural water pathways over the site. These materials must not be placed in storm-water channels, drainage lines or rivers. 			

No.	Aspects	Activity	Potential impacts	Mitigation measures/Actions	Responsible party	Timeframe	Frequency of action
				<ul style="list-style-type: none"> Storm-water outfalls should be designed to reduce flow velocity and avoid stream bank and soil erosion. 			
5.	Water quality Soil contamination Air quality		Poor sewage infrastructure can result in water & ground contamination	<ul style="list-style-type: none"> Wastewater must be disposed of via the municipal sewer infrastructure. All sewer pump stations must have a backup power source or the entire sewer system must operate using gravity alone. All sewer pump stations must have a backup pump. All manholes located within 30m of the edge of any wetland habitat must have a bund for handling any minor leakages/overflows from the manholes 	Construction manager/ECO	Site Preparation & during construction	Ongoing
6.	Water quality		Development of a township can cause water contamination	<ul style="list-style-type: none"> Sediment and Erosion Control: Implement erosion and sediment control measures such as silt fences, sediment basins, and erosion control 	Construction manager/ECO	Site Preparation & during construction	Ongoing

No.	Aspects	Activity	Potential impacts	Mitigation measures/Actions	Responsible party	Timeframe	Frequency of action
				<p>blankets to prevent soil erosion and sedimentation into nearby water bodies.</p> <ul style="list-style-type: none"> • Stormwater Management: Design and implement stormwater management systems to capture, detain, and treat stormwater runoff from construction sites before it enters water bodies. This can include the use of retention ponds, bioswales, and permeable surfaces. • Proper Waste Management: Establish procedures for the proper disposal and management of construction waste, including hazardous materials such as paints, solvents, and chemicals. Ensure that waste is stored, handled, and disposed of according to regulations to prevent leaching into groundwater or surface water. • Spill Prevention and Response: Develop spill prevention plans and train construction workers 			

No.	Aspects	Activity	Potential impacts	Mitigation measures/Actions	Responsible party	Timeframe	Frequency of action
				<p>on spill response procedures to quickly contain and clean up any spills of hazardous materials that could contaminate water sources.</p> <ul style="list-style-type: none"> Construction Best Practices: Implement construction best practices such as minimizing disturbed areas, phasing construction activities to reduce exposed soil, and using drip pans or secondary containment for equipment and materials to prevent leaks and spills. 			
7.	Soil and Sand Sourcing	Sourcing of material	Sourcing of material can cause resource depletion, carbon footprint and waste generation	<ul style="list-style-type: none"> Bedding material is often sourced from local borrow pits or sand mines. The following criteria must be adhered to: <ul style="list-style-type: none"> - Any local borrow pit or sand mine used must be a permitted source through The Department of Mineral Resources and Energy (DMRE). - The contractor excavating the material must do so within the parameters of the mining permit, adhering to 	Construction manager	Planning and During Construction	Ongoing

No.	Aspects	Activity	Potential impacts	Mitigation measures/Actions	Responsible party	Timeframe	Frequency of action
				<p>the EMPr conditions for that particular site.</p> <ul style="list-style-type: none"> - The borrow pit and sand mine must be shaped post excavation. 			
8.	Air, ground and noise pollution	Construction	Operation of construction vehicles and plants in and around the construction area can cause air, ground and noise pollution	<ul style="list-style-type: none"> • There will be increased dust generated during the construction phase by i.e., heavy trucks, cement mixers, bulldozers, TLBs, generators, drills. However, this will have a temporary impact i.e., the site will be worked continuously for a few months until construction is completed. Further to this: <ul style="list-style-type: none"> - Vehicle speed limits within the construction areas must be reduced to 40km/hr to reduce the amount of dust raised to and from the site. - The material being transported to the site in the back of the trucks must be covered. - Water carts must be used onsite should dust levels elevate to a nuisance level 	Principal Contractor and Environmental Liaison Officer	Planning & Design	Ongoing

No.	Aspects	Activity	Potential impacts	Mitigation measures/Actions	Responsible party	Timeframe	Frequency of action
				<ul style="list-style-type: none"> - Shade cloth must be utilised for stockpiled materials where required. - The applicant must comply with the National Dust Regulations (Government Notice R827, 2013) with regards to dust levels produced on site • All construction vehicles operating on the site must be fitted with the appropriate exhausts to reduce emissions into the atmosphere. • The construction phase of the project will see an increase in vehicles moving through the area and the park which will result in increased noise. All construction vehicles operating on site must be fitted with standard silencers to reduce the noise levels produced. • All fuel storage areas must be located on hard surfaced areas and bunded to 110% capacity of the containers stored therein. 			

No.	Aspects	Activity	Potential impacts	Mitigation measures/Actions	Responsible party	Timeframe	Frequency of action
				<ul style="list-style-type: none"> Drip trays must be used under all fuel operated machinery at all times. 			
9.	Waste management	Generation, storage and disposal of waste during construction	Improper storage and disposal of waste can result in ground and water contamination.	<ul style="list-style-type: none"> The construction phase of the project will see an increase in workers on site and therefore an increase in waste in the area. Littering shall not be permitted in the project area. Designated waste storage areas with appropriate waste receptacles must be set up within the construction site camp. Waste management will be controlled through the implementation of the EMP. This impact can be managed and mitigated 	ECO/Sub-Contractors	Planning, Design & Construction	Ongoing
10.	Sanitation	Chemical toilets	The chemicals used in these toilets can have environmental impacts if not handled correctly	<ul style="list-style-type: none"> Appropriate and sufficient toilet facilities (1 toilet per 15 employees) must be provided by the contractor. All toilet facilities must be checked on a daily basis. 	ECO uMzimkhulu Local Municipality	Construction/and operation	Ongoing

No.	Aspects	Activity	Potential impacts	Mitigation measures/Actions	Responsible party	Timeframe	Frequency of action
				<ul style="list-style-type: none"> All toilet facilities must be emptied and cleaned on a weekly basis. A registered waste removal contractor must remove sewage waste from the site to a permitted Waste Water Treatment Facility Safe disposal slips for the disposal of toilet waste must be obtained and kept on-site as proof of safe disposal. 			

3.3. Post-construction/ rehabilitation phase

Table 6: Post-construction/rehabilitation phase

No.	Aspects	Mitigation measures/actions	Responsible party	Timeframe	Frequency of action
Post-construction/ rehabilitation phase					
1.	Post-constructions activities/Rehabilitation	<ul style="list-style-type: none"> All remaining maintenance materials, building rubble and waste are to be removed from the site Locally appropriate indigenous vegetation must be included in the landscape for the site. These should be planted within the open spaces After the contract is completed, all damaged areas must be successfully rehabilitated within three months. To prevent soil erosion, disturbed areas of indigenous vegetation as well as cuts and fills need to be rehabilitated right away. 	Contractor/ECO	After construction phase	Once-off

SECTION 4

4. ROLES AND RESPONSIBILITY

The parties with environmental responsibilities for this development include but are not limited to: the designated Environmental Control Officer (ECO), the Environmental Site Manager (ESM), the Developer, the Project Team and the Contractor.

4.1. Designated Environmental Control Officer (ECO)

For the purpose of the EMPr, the applicant shall appoint an independent Environmental Control Officer (ECO) for the duration of the construction period. The ECO will be responsible for ensuring that the provisions of the EMP are complied with and to undertake regular compliance inspections and reporting findings to the developer, Council and the Department of Agriculture and Environmental Affairs and other bodies / parties as may be decided.

The Principal Agent will be responsible for issuing instructions to the contractor where environmental considerations call for action to be taken. The ECO will submit monthly reports to the Principal Agent on site who will verify the information before being issued to the Contractor.

The Environmental Control Officer (ECO) is responsible for ensuring that the requirements of the EMPr are implemented. Whereas the Principal Agent has overall responsibility for the construction site, the ECO's focus is on the environmental aspects of the construction phase.

The responsibilities of the ECO are to:

- Undertake ongoing monitoring of the construction site through regular site visits and record key findings. This includes photographic monitoring of the construction site. The frequency of these visits will be determined by the stage of the project, and shall occur at least monthly.
- Advise the Principal Agent and the Contractors on environmental matters during the construction phase of this development.
- Monitor the implementation of the CEMP by the Contractor.
- Keep a site diary or other appropriate records in which events and concerns of significance are to be recorded. All site instructions issued by the Employer's Agents are to be copied to the ECO.
- Advise the Principal Agent on actions or issues impacting on the environment and provide appropriate recommendations to address and rectify these matters. The Principal Agent shall issue any required Site Instructions to the Contractor.
- Ensure that the Contractor has a copy of the CEMP and all agreed Method Statements.
- Ensure that all environmental issues raised by the Environmental Liaison Committee and the Authorities, are dealt with at regular intervals.
- Ensure that the conditions stipulated in the Record of Decision will be complied with and the CEMP is implemented and adhered to.
- Act as a liaison with the DAEA, Environmental Liaison Committee (ELC), environmental consultant and other environmental authorities to ensure communication with key stakeholders with respect to the monitoring of compliance with conditions of authorization and the CEMP.

- Any new, or amendments to existing, mitigation measures to address areas of concern notified by the ECO are to be acted on as necessary by the Main Contractor.
- Conduct regular monitoring of the Construction Phase to ensure compliance with this CEMP. The results of this monitoring will be reported to the Main Contractor, the Developer, the eThekweni Municipality and the Department of Agriculture and Environmental Affairs in the form of a compliance monitoring report which must be submitted monthly during the Construction Phase. The format of the compliance monitoring report must be agreed upon by DAEA and eThekweni Municipality prior to construction commencing.

4.2. Environmental Site Manager (ESM)

The Contractor shall appoint an Environmental Site Manager (ESM) for the duration of the construction period. The ESM shall be a senior member of the construction team and have overall environmental management responsibilities on the site.

The responsibilities of the ESM are to: -

- Monitor the activities of the Main Contractor and all subcontractors and ensure that mitigation measures contained in this document are adhered to.
- Liaise with the Environmental Control Officer (ECO) on a regular basis so as to inform the ECO of the adherence to and effectiveness of the prescribed management measures.
- Take direction from the ECO on any actions required to ensure compliance with the CEMP.
- Keep records of non-compliance that occur from time to time and methods by which non-compliance were rectified. Such events must be reported to the Main Contractor, the Developer, the ECO and the Environmental Liaison Committee in order that they can follow up as necessary.

4.3. The Developer

The Developer has overall responsibility for compliance with the CEMP since it is a fundamental component of the authorization requirements for the project.

This means that the developer must:

- Ensure that the professional team and the Contractors are appropriately briefed and that their appointment includes environmental requirements, as relevant.
- Ensure that he/she is kept fully informed of the performance of the project against the requirements of the CEMP.
- Ensure that appropriate action is undertaken where consistent incidents of non-compliance are taking place.
- Ensure that any corrective action required by the authorities is implemented.

4.4. The Project Team

The Project Team is responsible for ensuring that on-site activities are undertaken in accordance with the requirements of the CEMP. It should consist of representatives from the Developer, appointed Professionals (e.g. Principal Agents, Architects, Environmental Site

Manager (ESM), Landscape Architects, etc.) the Contractor and the ECO. Ultimate on-site responsibility would typically lie with the Contractors.

The Project Team must:

- Ensure that environmental requirements are properly recorded in tender and contract documents.
- Identify corrective action if non-compliance occurs or unforeseen environmental issues arise that require environmental management action and ensure that this is implemented.
- Ensure that appropriate records and information regarding compliance with environmental requirements are maintained.
- Ensure that information is provided on environmental performance to the developer, the Environmental Liaison Committee and the eThekweni Municipality.

The Principal Agent must ensure that:

- All site instructions are copied to the ECO; and
- Instructions as required by the ECO, are issued to the Contractor.

4.5. The Contractor and Sub-contractors

The Contractors are responsible for implementing the requirements of the EMPr during the construction period.

This means that the Contractors must:

- Assign the environmental responsibilities to appropriate staff members on the site (e.g. the site foreman or foreman/supervisors responsible for particular aspects of the contract).
- Plan and schedule activities in a manner that minimizes the potential for disruption to neighboring communities and impact on the environment. In this regard, the Contractor must discuss and agree such plans with the Principal Agent and the ECO.
- Attend the EMPr induction process chaired by the EIA Consultants on the implementation of the CEMP prior to the commencing of construction activities. This induction for all staff at all levels will be a condition of employment.
- Ensure adherence to the requirements of the CEMP by all employees, sub-contractors, suppliers, agents, etc. The Contractor will need to include environmental requirements in the contracts with sub-contractors.
- Ensure that he/she and all staff and sub-contractors completely understands the requirements of the CEMP.
- Ensure that environmental concerns or problems that he/she identifies are timorously raised with the ECO and that the ECO's recommended course of action is implemented.
- Ensure that any corrective action stipulated by the ECO or the Principal Agent is implemented immediately

4.6. The Regulatory Authorities

The regulatory authorities provide independent auditing functions, ensure compliance with the ROD and EMPr and approve amendments or changes to this EMPr.

The onus is on the authorities to advise the ECO how best their needs may be met.

4.7. Environmental Liaison Committee (ELC)

The Environmental Liaison Committee is responsible for providing a forum for addressing environmental concerns that Interested and Affected Parties may raise during the construction phase and for information sharing regarding the project.

The primary functions of the ELC will be:

- to meet at least once a month and receive reports on environmental compliance in terms of this CEMP during the construction phase of the development from the ECO;
- to ensure that feedback on the project is provided;
- to ensure that minutes of the meetings are taken and kept on record.

An independent facilitator shall be appointed to guide the ELC and provide secretarial functions.

In order to ensure that it is possible for the public to voice concern during the concern period, a complaints line (telephone) will be established and operated during office hours.

SECTION 5

5. PROPOSED MECHANISMS FOR MONITORING AND CONTROL

A monitoring programme should be in place not only to ensure compliance with the EMPr through the contract/work instruction specifications, but also to monitor any environmental issues and impacts which have not been accounted for in the EMPr that are, or could result in significant environmental impacts for which corrective action is required.

5.1. EMPr Compliance

During the construction period, a copy of the EMPr must be maintained on site at all times. The EMPr is mandatory for all contractors working on the site and should be included in the Contractual Clauses.

It should be noted that as per the National Environmental Management Act No. 107 of 1998 (Section 28), individuals or entities responsible for environmental damage are required to cover the costs of repairing damage to the environment and human health. They must also implement preventative measures to minimize or prevent future pollution or environmental harm, following the "polluter pays principle."

5.2. Non-Compliance

Contractors must promptly address any notice of non-compliance and take corrective action. Complaints related to environmental activities on the construction site must be documented in a register, including the response and actions taken, with the date noted. The ECO should be informed of any complaints. Non-compliance with the EMPr procedures violates environmental laws and regulations. If the issue is not resolved, it will be reported to the appropriate authority for further action.

5.3. Environmental Site Meetings

Regular environmental site meetings shall take place to facilitate the transfer of information and to address the environmental compliance of the project as a whole. The ECO shall arrange these meetings. The ECO will present a summary report outlining the main construction activities that relate to the environment at this meeting.

These meetings will be chaired by the ECO. The minutes of these meetings will form part of the CEMP records and will be forwarded to the Environmental Liaison Committee. The ECO will be responsible for the minutes and their distribution. These minutes will reflect environmental queries, agreed actions and dates of eventual compliance by the Contractor.

The following people should attend these meetings:

- Design team representatives (Architect, Environmental Site Manager, Environmental Consultant)
- The ECO (Chair)
- Contractor representatives (ESM)
- Principal Agent
- Representatives of the ELC where and if appropriate

5.4. Public Liaison

Any complaints or comments from the public regarding activities during the construction phase shall be directed to the ECO, via the ESM who shall be responsible for recording any such complaints and comments. A course of action to deal with the complaint will be decided upon by the ECO in consultation with the Developer, Principal Agent and Contractor. The ECO shall be responsible for advising the relevant Interested and Affected Parties (I&AP's) prior to the commencement of site activities of the procedures that are to be followed if they wish to raise any issues regarding construction activities.

SECTION 6

6. AUDITING AND REPORTING PROCEDURE

6.1. Auditing

To ensure successful implementation of EMPr, it is crucial to monitor and review its implementation effectively. This involves identifying any issues and taking corrective action promptly. If discrepancies are found, they must be investigated and resolved. All environmental monitoring results should be documented for auditing purposes.

An audit of the environmental monitoring and management actions is crucial to ensure their effectiveness, compliance with regulations, and alignment with specified goals. Audits should be conducted during the construction phase of the facility to verify compliance with the management measures outlined in the Environmental Management Programme (EMPr).

The construction audit should be schedule as follows:

- Monthly internal audits by the ECO;

- Quarterly independent external audits during the construction and site establishment phase by an independent external auditor;
- One post-construction audit by an independent external auditor;
- Annual audits for the first five years of the operational phase of each of the five phases; and Audits every five years of the overall compliance to the EA and EMPr conditions and recommendations for amendments for the remainder of the life the development.

The audits will include the monthly reports from the SHE Representative. If the audits reveal non-compliance with the EMPr, the frequency of operational phase audits may be increased.

6.2. Reporting

All non-conformances will be documented and reported to the Developer or its Agent. These incidents will be assessed using a weighing methodology to determine their significance. Given the dynamic nature of construction, daily visual inspections will be carried out by the SHE representative.

The following documentation will be required on site:

- Complaints register;
- Environmental Incident Register;
- Disposal certificates of waste and waste water generated as a result of the proposed development;
- Monthly internal audit reports;
- Quarterly external audit reports;
- Method statements with potential environmental impacts included;
- Non-conformance reports;
- Written corrective action instructions;
- EA; and
- EMPr and associated amendments.

The results of inspections and internal audits will be compiled into informative reports for the Project Management Team. Clear corrective actions will be outlined as needed. A structured review process will be in place to ensure that necessary corrective actions are identified and implemented.

To enhance the reporting structure, a review function must be integrated to regularly evaluate the reporting and recommend corrective actions as needed. The Developer will conduct reviews to assess environmental management performance across all phases and suggest improvements for continual enhancement.

6.3. Communication Structure

A communication structure is attached as Figure 1 below. The structure illustrates the lines of communication and the responsibilities during the construction works

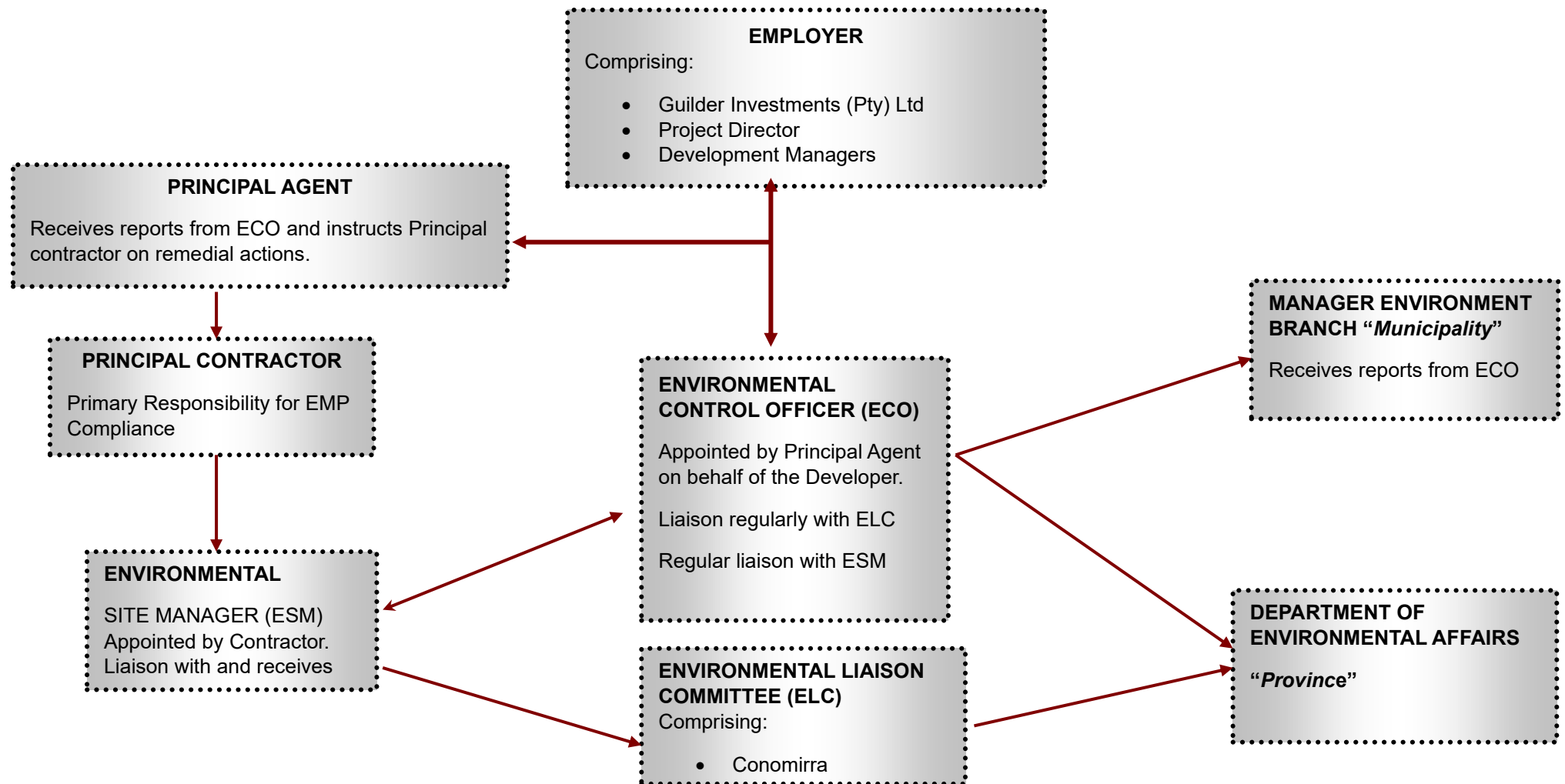


Figure 1: Communication structure

SECTION 7

7. ENVIRONMENTAL AWARENESS PLAN

The successful implementation of the EMPr conditions relies on effectively communicating these requirements to all stakeholders involved in the development. An Environmental Awareness Plan must be commissioned by the Developer prior to commencement of pre-construction activities, to familiarise all the members of the Project Management Team and their respective employees with the conditions of the EMPr.

7.1. Preparation of the Plan

The preparation of the Environmental Awareness Plan should be undertaken as part of the Environmental Management Implementation Plan and should include the following:

- Consultation with DEDTEA, Department of Human Settlements and the uMzimkhulu Local Municipality
- Compilation of summaries of the conditions of the EMPr;
- Distribution of summaries and full documents to members of the Project Management Team;
- Criteria which will trigger the Plan
- Induction of all employees (the SHE Representative should induct all construction workers) and visitors prior to commencement of site clearing and construction activities making them aware of:
 - Legal obligations as per NEMA, EMPr and EA;
 - Roles and responsibilities;
 - Mitigation measures applicable to their functions on site; and
 - Potential penalties for non-compliance.

7.2. Environmental Awareness and Training

The Contractor shall ensure that the construction team and all sub-contractor/s are familiar with the EMPr, its requirements and a basic level of environmental awareness training. The ECO shall undertake environmental awareness induction training prior to the start of closure activities on site.

The Environmental Awareness Plan must take into account the preferred language of the employees on site and must be presented in a language that they will understand.

The training should include but will not be limited to the following:

- Explanation of what is meant by “environment” and why the environment needs to be protected and conserved.
- Awareness of emergency and hazardous spills response provisions.
- Prevention of pollution and litter control and the minimization of disturbance to sensitive areas.
- Social responsibility during construction for closure. This entails being considerate to local land owners. Construction workers need to be made aware that they are not to make excessive noise (e.g., shouting/hooting)
- The need for a “clean site” policy also needs to be conveyed to construction workers.

- Worker conduct on site which encompass a general regard for the social and ecological wellbeing of the site and adjacent areas. Workers need to be made aware of the following general rules of behaviour.
 - No alcohol/drugs to be present on site and no firearms permitted on site or from areas adjacent to it.
 - Workers are to make use of facilities provided for them, as opposed to ad-hoc alternatives (e.g., the use of surrounding bush as a toilet facility is forbidden)
 - Trespassing on private/commercial properties bordering the site is forbidden.
 - No workers shall be permitted to live on site unless deemed necessary due to specific reasons.

It is also important that the Project Engineer/ECO is on hand to explain more complex/technical issues and to answer questions. It is recommended that the Environmental Control Officer (ECO) is appointed by the developer or contractor who will be responsible for the execution of the listed activities on the development site as per the EMPR requirements.